NEPA Written Reevaluation

NHDOT Project #10044E, FHWA # X-A0003(378)

Plaistow-Kingston, 10044B

MGS-STP-T-X-5375 (010)

NEPA Written Reevaluation

NH 125 Plaistow-Kingston, Contract 10044E

Plaistow and Kingston, New Hampshire

Prepared for:

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&

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1 Introduction

This document presents a written reevaluation for a 1.8-mile section of a larger, previously studied, proposed roadway project that was presented in a Final Environmental Assessment (EA) and Section 4(f) Evaluation, published in October 2005. The larger project consisted of a six-mile section of NH 125 within the Towns of Plaistow and Kingston, New Hampshire (FHWA Project MGS-STP-T-X-5375 (010)/NHDOT Project 10044B). This written reevaluation includes only the 1.8-mile section of the six-mile project beginning at a point approximately one quarter mile south of the Plaistow/Kingston town line, extending northerly approximately 1.8 miles ending just south of Hunt Road/Newton Junction Road. This 1.8-mile section is known as Construction Contract 10044E (Contract E).

The general limits and status of each construction contract segment from the overall six-mile 10044B project include C, D, F, G, and E (the project at-hand). The contract segments are detailed below.

- 10044C – South of Newton Junction Road/Hunt Road to north of West Shore Park Road (construction completed in January 2004)
- 10044D – South of Old County Road to north of Old County Road (construction completed in March 2007)
- 10044F – Old Road to south of Old County Road (construction completed July 2010)
- 10044G – East Road to Old Road (construction completed in September 2015)
- ***10044E – beginning at a point approximately one quarter mile south of the Plaistow/Kingston town line, extending northerly approximately 1.8 miles ending just south of Hunt Road/Newton Junction Road (construction anticipated to begin in Summer of 2023).***

Contract E, the project that is the subject of this written reevaluation, was previously evaluated during the environmental review process conducted as part of the original National Environmental Policy Act (NEPA) environmental impact documentation for the six-mile project. The results of the studies were presented in the 2005 EA. This previous NEPA review is summarized in Section 1.1, below. The project area limits of Contract E are shown on Figure 1. An overview of the segment locations for the 10044B project are shown on Figure 2.

This written reevaluation focuses on the following:

- changes in the project design;
- changes in the conditions in the project corridor;
- regulatory changes;
- changes in the previously identified impacts; and
- new or modified environmental commitments.

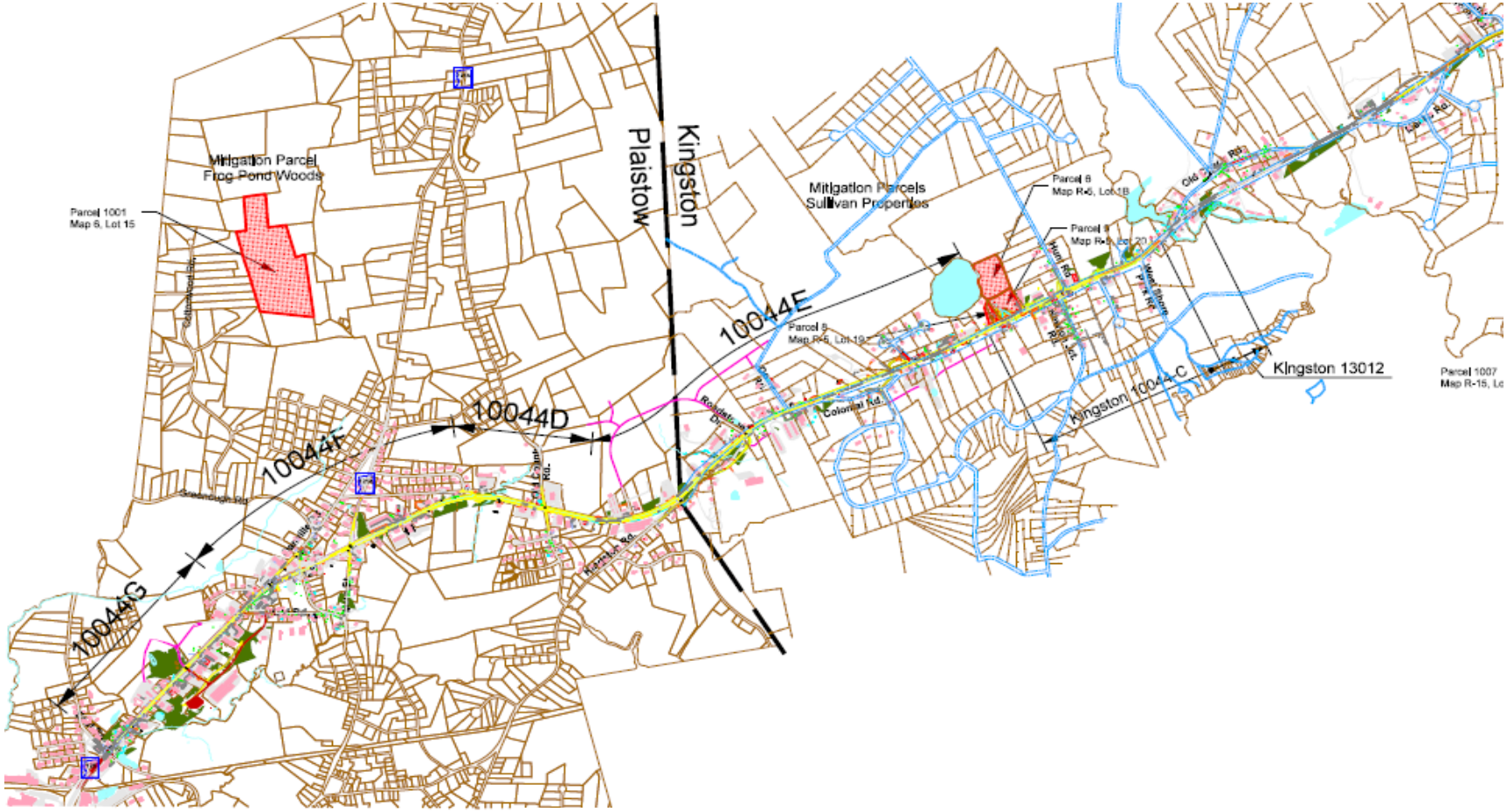


Figure 2 – 10044B Construction Contract Breakouts for NH 125 Plaistow-Kingston.

1.1 NEPA Documentation Overview

As noted above, the 1.8-mile section of NH 125 was previously evaluated under NEPA as well as applicable state and federal environmental laws and agency consultation. Based on the time lapse and the design changes to this section of NH 125 since the previous NEPA approval, the NHDOT along with Federal Highway Administration (FHWA) commenced this reevaluation to determine if the 2005 EA, which evaluated the Proposed Action (see Five-Lane Typical Section - Figure 3), remains valid for the currently proposed Updated Proposed Action (see Three-Lane Typical Section - Figure 4).

The 2005 EA (and the accompanying Section 4(f) Evaluation) identified a Proposed Action that called for a five-lane roadway. The five-lane roadway included two-lanes in each direction plus a raised median with cuts to allow for turning lanes. This 2005 Proposed Action incorporated a comprehensive access management plan that included a raised center median throughout the four-lane section, traffic signal control, exclusive left-turn lanes, the construction of connector or service roads, jug-handles, emergency vehicle turnarounds, and directional median openings. Directional median openings were designed to allow motorists to turn left from the corridor onto a side street or driveway (or reverse direction) while prohibiting left-turn movements onto the corridor from the adjacent properties. Additionally, to enhance the character of the corridor and to introduce a "traffic calming" element, the raised center median was proposed to be landscaped.

The five-lane roadway design, for the entire six-mile length, was presented to the public at a Public Hearing on November 3, 2004. Construction of the project has been completed for Contracts C, D, F, and G. Contract E is the only remaining segment not yet constructed.

FHWA issued a Finding of No Significant Impact (FONSI) for the six-mile project on November 17, 2005. The FONSI stated that the Proposed Action would have no significant impact on the human environment, and the EA adequately and accurately discussed the need, environmental issues, and impacts of the proposed project and appropriate mitigation measures. In addition, the FONSI stated that evidence was provided that an Environmental Impact Statement was not required.

Based upon the previous Proposed Action (five-lane roadway) and the current Updated Proposed Action (three-lane roadway), it is reasonable to conclude that environmental impacts resulting from the Updated Proposed Action would be less than the impacts disclosed in the 2005 EA.

Once this reevaluation is finalized by FHWA, the agency will make a determination, in accordance with the guidance provided at 23 Code of Federal Regulations (CFR) 771.130, as to whether a new EA is required. A new EA will not be required if this reevaluation demonstrates "*a lessening of adverse environmental impacts….without causing other environmental impacts that are significant and were not evaluated in the EA"* [23 CFR 771.130(b)(1)].

The Purpose and Need, as described in the 2005 EA, remains unchanged. A summary of the Purpose and Need follows:

> *To address this deficient segment of the highway, the overall purpose of this project is to improve capacity and safety, relieve traffic congestion, and enhance the safe and efficient access to and from abutting properties along the corridor.*

Based upon the current traffic volumes and operational analysis (Section 2.1) a five-lane roadway is not necessary and has been eliminated from consideration. The Updated Proposed Action, although reduced by two lanes, continues to meet the originally identified Purpose and Need of the project relative to the improved capacity, safety, and reduced congestion. Traffic operations within this 1.8-mile segment of NH 125 would remain consistent with, or better than, those previously reported in the 2005 EA.

1.2 Location and Project Description

The Updated Proposed Action, in general terms, is described below and throughout Chapter 2, Updated Environmental Analysis. New or changed environmental conditions are also described. In addition to reconstructing the roadway, the Updated Proposed Action includes intersection work, drainage work, and the addition of seven water quality treatment areas. The project General Plans (dated September 4, 2020) prepared for the Slope and Drain Design phase of the project are enclosed in Appendix A.

Mainline NH 125

Contract E would reconstruct this 1.8-mile section of NH 125 within Plaistow and Kingston from a two-lane section to a three-lane section. This consists of two travel lanes, one lane in each direction, and a dedicated two-way center left-turn lane throughout. This is the final segment to be constructed as part of Project 10044B and will tie into the previously constructed improvements located to the north (Contract C) and to the south (Contract D).

As part of the Updated Proposed Action, side road improvements, including intersection consolidation and realignments, will consist of the following:

- **Kingston Road and Granite Road:** consolidate roads and realign the Kingston Road intersection with NH 125.
- **Diamond Oaks Boulevard:** adjust to align with Roadstone Drive and improve intersection geometry.
- **Roadstone Drive:** widen the southbound shoulder of NH 125 to accommodate trucks turning right onto Roadstone Drive (a recommendation incorporated from project Working Group).
- **Dorre Road:** widen the southbound shoulder of NH 125 to accommodate trucks turning right onto Dorre Road (a recommendation incorporated from project Working Group).
- **Colonial Road and Happy Hollow Lane:** close southern connection of Colonial Road to NH 125 due to poor site distance and intersection geometry and relocate Happy Hollow Lane/Colonial Road intersection with NH 125.

1.3 Differences Between the Proposed Action (2005) and the Updated Proposed Action (2021)

This section describes elements of the Updated Proposed Action (2021) that differ from the Proposed Action identified in the 2005 EA. The overall effect of these proposed changes reduces the footprint of Contract E. Although minor elements of the Updated Proposed Action differ relative to the 2005 Proposed Action, the 2021 Updated Proposed Action meets the project's original Purpose and Need.

Five-Lane with Raised Median vs. Three-Lane with Center Turn Lane

Since the completion of the 2005 EA, future year traffic projections and operational analyses have been revised (See Section 2.1 Traffic). These analyses indicated that traffic growth that was anticipated to occur was not realized. The actual traffic growth resulted in the finding the two travel lanes with a two-way center turn-lane for this 1.-8-mile highway segment will meet the purpose and need of the project. This three-lane section will provide adequate traffic operations while providing the necessary safety improvements.

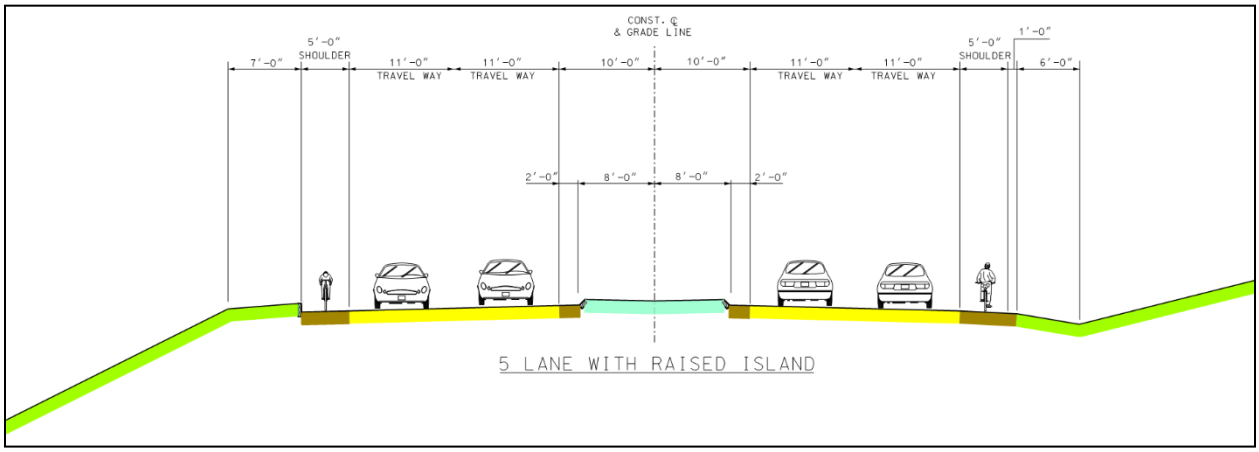


Figure 3 - Five-lane Typical Section Presented at 2004 Public Hearing (and 2005 EA)

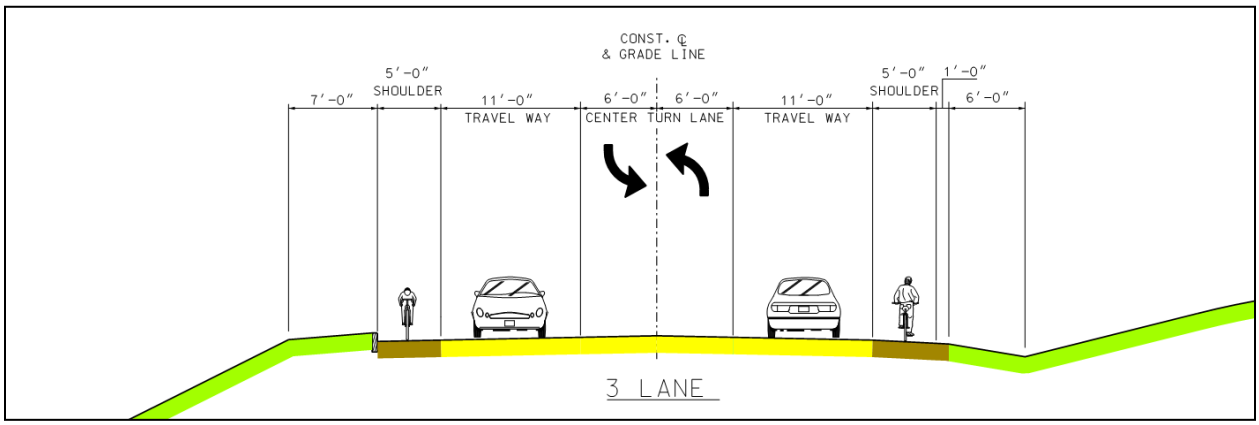


Figure 4 - Three-lane Typical Section Presented at the 2021 Public Hearing (and 2021 Reevaluation)

Property Acquisitions

The 2004 Public Hearing and the 2005 EA presented a total of seven building acquisitions in the Contract E segment that were necessary to implement the Proposed Action. Since the footprint of the project has been reduced in size, the acquisitions necessary to implement the Updated Proposed Action include

only two of the seven buildings that were presented in the 2005 EA: one building located on Parcel 30 (formerly Parcel 173) and one located on Parcel 39 (formerly Parcel 179), in Kingston. An additional acquisition that was not shown on the 2004 Public Hearing Plans nor evaluated in the 2005 EA is necessary for the Updated Proposed Action. This acquisition includes a portion of Parcel 34 (formerly Parcel 287) located in Kingston.

The 2004 Public Hearing and 2005 EA presented the need for the acquisition of Parcel 42 (formerly Parcel 181, Parcel 36 (formerly Parcel 178A, Whitney Garage), Parcel 56 (formerly Parcel1), Parcel 57 (formerly Parcel 2, Kingston Foreign Auto), and one structure located on Parcel 60 (formerly Parcel 56, Timeless Treasures Antique Shop). Acquisition of these previously identified parcels/buildings does not appear necessary since the project footprint has been reduced but will be further evaluated during the next phase of the project, Final Design.

Additional Resource Impacts

Other impacts and design changes since the 2004 Public Hearing are shown on the General Plans (Appendix A) and discussed below. Impacts to resources and lands have been reduced relative to the reduced footprint of the proposed highway improvements. Additional public participation and agency consultation will occur as the design progresses during Final Design and the right-of-way process.

1.4 Agency Coordination and Public Participation

Throughout this reevaluation process of the Updated Proposed Action, agency consultation and public participation has occurred. The Updated Proposed Action has been reviewed at the NHDOT Natural Resource Agency Coordination Meetings attended by NHDOT, Federal Highway Administration (FHWA), New Hampshire Department of Environmental Services (NHDES) Wetlands Bureau, New Hampshire Fish & Game (NHFG), U.S. Environmental Protection Agency (USEPA), U.S. Army Corps of Engineers (USACOE), U.S. Fish & Wildlife Service (USFWS), and New Hampshire Natural Heritage Bureau (NHNHB) and NHDOT Cultural Resource Agency Coordination meetings attended by NHDOT, New Hampshire Division of Historic Resources (NHDHR), and FHWA at a number of their regularly scheduled meetings. In addition, a Working Group consisting of local officials and business owners was formed. The NHDOT project team met with the Working Group multiple times to present the concept designs and to receive feedback. Two Public Informational Meetings were also held to present the Updated Proposed Action and receive feedback. A list of the meetings along with the date, location, and meeting topic is provided in Table 1.4-1.

Table 1.4-1: Agency Coordination and Public Participation

Date	Meeting	Purpose of Meeting
March 25, 2019	Kingston Selectboard Meeting Kingston Town Hall	Present the project and potential changes
March 20, 2019	Natural Resource Agency Coordination Meeting NHDOT	Present project and receive feedback on natural resource impacts and mitigation
May 23, 2019	Working Group Meeting #1	Introduce the project, receive feedback on

	Kingston Town Hall	typical section and other project elements
June 20, 2019	Working Group Meeting #2 Kingston Town Hall	Review input received on typical section of side roads, discuss project purpose and need, present conceptual alternatives
October 17, 2019	Public Informational Meeting #1 Kingston Town Hall	Present project alternatives to the public and receive feedback. Gain an understanding of the public's views, desires and goals for the corridor.
January 23, 2020	Working Group Meeting #3 Kingston Town Hall	Discuss preferred alternative, final design, and next steps
February 13, 2020	Cultural Resource Agency Coordination Meeting NHDOT	Discuss potential impacts to historic and archaeological resources
July 9, 2020	Cultural Resource Agency Coordination Meeting Virtual Meeting on Zoom	Discuss impacts to historic and archaeological resources
August 13, 2020	Cultural Resource Agency Coordination Meeting Virtual Meeting on Zoom	Discuss impacts to historic and archaeological resources
August 19, 2020	Natural Resource Agency Coordination Meeting Virtual Meeting on Zoom	Present project and receive feedback on natural resource impacts and mitigation for stream impacts
October 29, 2020	Public Informational Meeting #2 Virtual Meeting on Zoom	Present the Updated Proposed Action and receive feedback from the public.
November 18, 2020	Natural Resource Agency Coordination Meeting Virtual Meeting on Zoom	Discuss NHNHB feedback on species and mitigation for proposed stream impacts
May 19, 2021	Public Hearing Virtual Hearing on Zoom	Present the right-of-way impacts and receive formal public testimony.

2 Updated Environmental Studies

The following provides a brief summary of the environmental studies conducted as part of the 2005 EA as well as an update to these analyses based up the current conditions and how these conditions are impacted by the Updated Proposed Action. Previously proposed mitigation and current mitigation, when necessary is summarized as well as environmental commitments.

2.1 Traffic

2.1.1 Relevant Finding of the 2005 EA

The undertaking of this reevaluation of the 2005 EA is primarily due to changes in traffic volumes over the last 17 years. Traffic volumes in the area have seen an overall decrease from the volumes observed during the early 2000's where traffic data were used to develop the Proposed Action presented in the 2005 EA. This reduction in traffic volume and lack of continued growth has spurred this reevaluation to determine if the previously preferred five-lane roadway section was still warranted.

Existing Traffic and Travel Characteristics

Traffic counts were originally conducted in November and December of 2001 to inform the decision-making process during the preliminary design of the Proposed Action. The traffic data were presented in the 2005 EA. These counts were used to develop daily and weekday peak periods, traffic volumes, and turning movements with a review of the seasonal and hourly traffic volume trends along the NH 125 project area. New traffic counts were conducted during the summer of 2018 to support this reevaluation effort.

There are three intersections that were counted and evaluated in 2001 and then counted and reevaluated in 2018. These three intersections provide the best comparison to the 2005 EA as the other intersections in the reevaluation study area were not specifically evaluated in 2005. These three intersections are the focus of the comparison and include the intersections of:

- NH 125 at Old County Road in Plaistow (not signalized in 2001 but was signalized in 2018)
- NH 125 at Kingston Road
- NH 125 at Hunt Road and Newton Junction Road (not signalized in 2001 but was signalized in 2018)

The reevaluation included a more in-depth analysis of the project area including seven additional intersections that were not specifically studied in the 2001. These intersections are currently unsignalized intersections on NH 125. The analysis showed that none of the additional intersections met signal warrants in the existing or future conditions. The seven additional intersections studied in 2018 (but not studied in 2001) include the following:

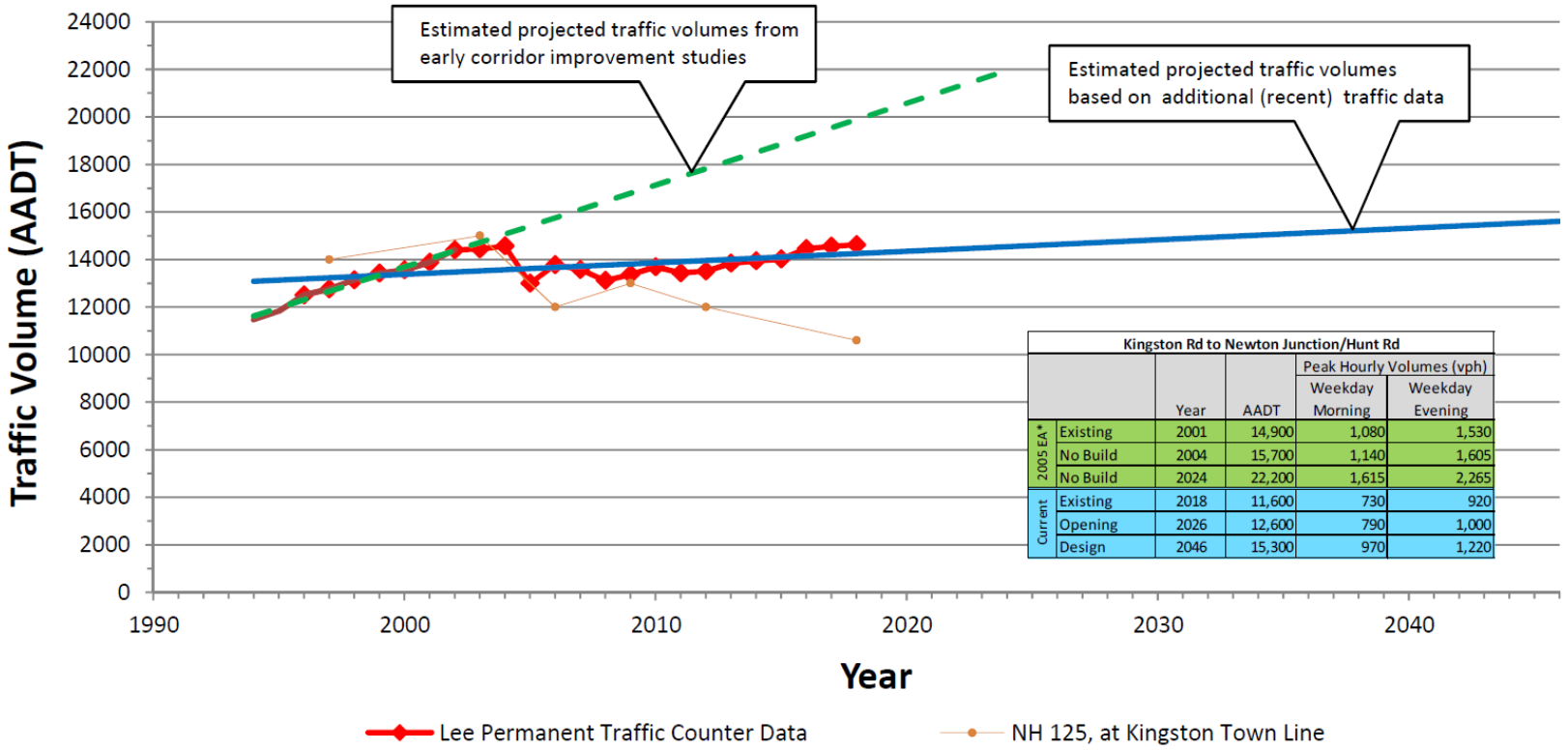
- NH 125 at Roadstone Drive (South)
- NH 125 at Granite Road
- NH 125 at Roadstone Drive (North)
- NH 125 at Dorre Road
- NH 125 at Colonial Road (South)

- NH 125 at Colonial Road (North)
- NH 125 at Debra Road

Traffic Volume Trends

A comparison of traffic counts from 2001 to 2018 based on permanent count locations demonstrate the decrease in traffic volumes during that time period as shown in the chart below, entitled Traffic Volume Trends (Figure 5). The permanent counter in Lee, on NH 125 (approximately 10 miles to the north) shows a significant drop in traffic volumes around 2005 with a growth trend significantly flatter than the trend of the previous 10 years. The four traffic counts taken after 2005 at the Kingston town line on NH 125 show a general downward trend in volumes.

Specific counts can be compared from those conducted in 2001 and this reevaluation conducted in 2018 as shown in the lower right of the Traffic Volume Trends graphic. At the Newton Junction Road/Hunt Road intersection the Annual Average Daily Traffic (AADT) counted in 2001 was 14,900 where the AADT counted in 2018 was only 11,600. This is a reduction of 3,300 vehicles. This decrease in traffic volume has not eliminated the need for safety and operational improvements within this 1.8-mile segment of NH 125; however, the decrease in traffic volume has eliminated the need for a five-lane section as previously proposed. The current traffic volumes call for a three-lane section with safety and operational improvements.



Kingston Rd to Newton Junction/Hunt Rd				Peak Hourly Volumes (vph)	
		Year	AADT	Weekday Morning	Weekday Evening
2005 EA*	Existing	2001	14,900	1,080	1,530
	No Build	2004	15,700	1,140	1,605
	No Build	2024	22,200	1,615	2,265
Current	Existing	2018	11,600	730	920
	Opening	2026	12,600	790	1,000
	Design	2046	15,300	970	1,220

*Refers to the 2005 Environmental Assessment document for the overall corridor improvements

Figure 5 – Traffic Volume Trends for NH 125 Plaistow-Kingston

While comparing analysis results presented in the 2005 EA to conditions in 2018, it is important to identify the differences that exist and improvements that have been constructed at each intersection during that time frame. Intersections of Old County Road and Hunt Road/Newton Junction Road were unsignalized in 2001 and were signalized in 2018. The existing conditions analysis of an unsignalized intersection will show a decline in Levels of Service (LOS) on the side roads and an improved LOS for movements on the main line of NH 125 in comparison to the same intersection analysis where the intersection is signalized. A comparison of the 2005 EA existing condition for year 2001 and the reevaluation of the existing condition for the year 2018 is shown in Table 2.1-1.

Table 2.1-1: Existing Conditions Comparison 2001 and 2018

Old County Rd	2001 LOS (AM)	2018 LOS (AM)	2001 LOS (PM)	2018 LOS (PM)
125 NB left	A	C*	A	C*
125 SB left	A	C*	A	C*
Old County Rd WB (Approach LOS)	D	B*	F	C*
Old County Rd EB (Approach LOS)	C	B*	F	B*

*signalized

Kingston Rd	2001 LOS (AM)	2018 LOS (AM)	2001 LOS (PM)	2018 LOS (PM)
125 NB left	**	A	**	A
125 SB left	A	A	B	A
Kingston Rd left	D	B	E	C
Kingston Rd right	B	B	E	C

** a new commercial driveway was constructed across from Kingston Rd. between 2001 and 2018

Hunt/Newton Jct.	2001 LOS (AM)	2018 LOS (AM)	2001 LOS (PM)	2018 LOS (PM)
125 NB left	A	C*	A	C*
125 SB left	A	E*	B	C*
Hunt Rd EB (Approach LOS)	F	D*	F	C*
Newton Jct. Rd WB (Approach LOS)	F	C*	F	C*

*signalized

Comparing the 2001 existing conditions to the 2018 existing conditions reveals the intersection movements are functioning better at each intersection with the exception of the NH 125 movements that were previously unsignalized. In the current conditions from the 2018 analysis there is only one approach movement that is not operating at a LOS of “D” or better. That movement is the NH 125 Southbound Left at the Hunt Road / Newton Junction Road intersection.

2.1.2 Updated Impact Analysis

The 2005 EA evaluated future travel demands for the year 2024. When the 2005 EA was developed the population in Rockingham County had doubled in the previous 30 years and was expected to increase by an additional 40% in the subsequent 20 years. A growth rate of 1.75% was established to grow the existing 2001 counts out to the future year of 2024 in the 2005 EA. This anticipated growth has not

occurred (refer to Traffic Volume Trend graphic above). Future travel demands based on the 2018 traffic counts and a growth rate of 1% (as provided by NHDOT) have been developed for the year 2046 for this reevaluation.

The 2005 EA developed a No-Build analysis for the year 2024 that established the intersections along NH 125 would operate at a failure condition. The No-Build configuration utilizes the current lane use with design year (2046) volumes. A comparison of the 2005 EA No-Build condition for 2024 and the reevaluation of the No-Build condition for the year 2046 is shown in Table 2.1-2. The comparison demonstrates improved LOS over the 2005 EA predictions, however still anticipates LOS "F" on multiple approaches at the Hunt Road /Newton Junction Road intersection in 2046 with no additional improvements.

Table 2.1-2: Future No-Build Conditions Comparison

Old County Rd	2024 LOS (AM) (from 2005 EA)	2046 LOS (AM) (2021 Reevaluation)	2024 LOS (PM) (from 2005 EA)	2046 LOS (PM) (2021 Reevaluation)
125 NB left	B	C*	A	C*
125 SB left	A	C*	B	C*
Old County Rd WB (Approach LOS)	F	C*	F	D*
Old County Rd EB (Approach LOS)	F	C*	F	C*

*signalized

Kingston Rd	2024 LOS (AM) (from 2005 EA)	2046 LOS (AM) (2021 Reevaluation)	2024 LOS (PM) (from 2005 EA)	2046 LOS (PM) (2021 Reevaluation)
125 NB left	**	A	**	A
125 SB left	A	A	B	A
Kingston Rd left	F	C	F	D
Kingston Rd right	B	C	F	D

** a new commercial driveway was constructed across from Kingston Rd. between 2001 and 2018

Hunt/Newton Jct.	2024 LOS (AM) (from 2005 EA)	2046 LOS (AM) (2021 Reevaluation)	2024 LOS (PM) (from 2005 EA)	2046 LOS (PM) (2021 Reevaluation)
125 NB left	B	C*	A	C*
125 SB left	A	F*	C	D*
Hunt Rd EB (Approach LOS)	F	F*	F	D*
Newton Jct. Rd WB (Approach LOS)	F	F*	F	D*

*signalized

The Proposed Action from the 2005 EA called for the reconstruction and widening of NH 125 to a five-lane roadway section that included a center raised median to separate directional flow. Exclusive left

turn lanes, traffic signal control and full access and egress was proposed at specific locations. This Proposed Action was analyzed for the build year of 2024.

This reevaluation proposes to construct a three-lane roadway section that includes a two-way left-turn center lane throughout. This three-lane section has been analyzed for a build year of 2046. A comparison of the data presented in the 2005 EA for the condition resulting from the Proposed Action in year 2024 and the reevaluation of a reduced footprint condition of the Updated Proposed Action in year 2046 is shown in Table 2.1-3.

Table 2.1-3: Future Build Conditions Comparison

Intersection	2024 LOS (AM) (from 2005 EA)	2046 LOS (AM) (2020 Reevaluation)	2024 LOS (PM) (from 2005 EA)	2046 LOS (PM) (2020 Reevaluation)
Old County Rd	B*	B*	B*	B*
Kingston Rd	B	A	B	B
Hunt/Newton Jct.	C*	C*	C*	B*

*signalized

The proposed designs for both 2024 and 2046 include signalization for the intersection of NH 125 at Old County Road and Hunt/Newton Junction Road. Comparing the 2024 design year from the 2005 EA and the 2046 reevaluated design year it is clear the LOS expected in 2046 will meet or exceed those originally expected in 2024. The reevaluation provides equal or better LOS with reduced impacts and fewer restrictions on traffic movements.

Crash Data Evaluation

Crash statistics were presented in the 2005 EA. The following trends were identified in the seven years (1996 to 2002) of data reviewed.

- Roadway surface conditions were recorded as dry for the majority of crashes
- Approximately two thirds of the total crashes were property damages only
- There was a steady increase in number of crashes from 1997 through 2001
- There was little seasonal fluctuation in the number of crashes

Crash statistics were reviewed in the reevaluation for a nine-year period spanning from the years 2007 through 2017 (partial year). The data revealed that approximately 81 crashes occurred in the 1.8-mile project area (10044E) with one crash in every three crashes resulting in an injury. One fatality occurred during this nine-year period within this 1.8-mile project area. The reevaluation revealed the majority of crashes were related to lane departures.

2.2 Air Quality

2.2.1 Relevant Findings of the 2005 EA

Highway agencies are required to consider the impacts of their projects on a local and regional level. A detailed air quality analysis was provided in the 2005 EA to show compliance with the 1990 Clean Air Act

Amendments (CAAA) and the New Hampshire State Implementation Plan (SIP). These rules require that a proposed project would not cause any new violation of the National Ambient Air Quality Standards (NAAQS), or increase the frequency or severity of any existing violations, or delay attainment of any NAAQS.

The 2005 EA included a microscale (local) analysis. The microscale analysis evaluated carbon monoxide (CO) concentrations at sensitive receptor locations and changes in CO emissions in the project area due to vehicle emissions, which are the primary source of CO emissions from the proposed project. The proposed project is located in Rockingham County, which at the time of the 2005 EA, was an area designated as an attainment area for CO. The results of the air quality analysis demonstrated that the Proposed Action would not interfere with the attainment or maintenance of the NAAQS for CO.

The U.S. Department of Transportation (USDOT) and the U.S. Environmental Protection Agency (USEPA) have established conformity procedures to ensure that transportation projects are in compliance with the SIP. This process is called conformity. Project level conformity requires that a proposed transportation project be part of an approved Transportation Improvement Program (TIP). The proposed project (in 2005) was included in NHDOT's State Transportation Improvement Program (STIP) for Fiscal Years 2003-2005. The STIP was approved by the USDOT as satisfying the transportation conformity requirements. The regional air quality impacts of the Proposed Action were addressed in the transportation conformity analysis and no analysis of regional emissions has been included in this air quality study.

2.2.2 Updated Impact Analysis

The Updated Proposed Action was assessed for potential air quality impacts and conformity consistent with all applicable air quality regulations and requirements. The analysis and technical report were prepared by Harris Miller Miller & Hanson Inc. (HMMH). The following information is a summary of the HMMH report, Air Quality Technical Report Route 125 Improvements, Plaistow and Kingston, New Hampshire, July 2020.

The assessment indicates that the project would meet all applicable air quality requirements of NEPA, and as applicable, federal and state transportation conformity regulations. As such, the project will not cause or contribute to a new violation, increase the frequency or severity of any violation, or delay timely attainment of National Ambient Air Quality Standards (NAAQS) established by the USEPA.

Additional details on the analyses conducted for Updated Proposed Action are provided below.

Carbon Monoxide

As the project is located in a region that is in attainment of the NAAQS for CO, only NEPA applies; EPA project-level ("hot-spot") transportation conformity requirements do not apply. Analyses for potential impacts for CO were conducted for the signalized intersections that might be impacted by the project. The CO analysis methodology and results are summarized as follows:

- The two studied signalized intersections for the Updated Proposed Action were compared to the NHDOT *Air Quality Impact Assessment & Abatement* three phases of Study for assessing potential air quality impacts to achieve compliance with the Clean Air Act Amendments, New Hampshire Air Quality Implementation Plan, and NEPA.

- The project meets the criteria for a Phase I qualitative analysis under the NHDOT guidance as it is included in the NHDOT Statewide Transportation Improvement Plan (STIP) FY 2019 -2022 (10044E) and is designated as a project that is not regionally significant.
- The CO qualitative analysis demonstrates that the Updated Proposed Alternative would not add any significant additional vehicular traffic or change the vehicle fleet mix compared to the No-Build Alternative at the signalized intersections. Daily traffic volumes, including diesel vehicles, are essentially the same, and LOS and delay times at the signalized intersections will be the same or lower at many locations compared to the No-Build Alternative.

  Furthermore, a CO hot spot analysis was conducted for the larger project area in October of 2005 (for the 2005 EA) for the four worst-case intersections, ranked by LOS and traffic volumes. The intersections studied in 2005 for the Proposed Action tended to have higher total traffic volumes at the intersections (up to 2,000 vehicles compared to a maximum of 1,922 for the Updated Proposed Action) and slightly higher LOS of B, C, and D depending on the AM or PM peak hour. The two signalized intersections studied for the Updated Proposed Action were included in the larger study in 2005, however, they were not one of the four worst-case intersections modeled in the CO hot spot analysis. The 2005 analysis showed that CO concentrations at the four worst-case intersections would not cause or contribute to a violation of the CO NAAQS, and therefore, all other intersections in the project area (including the two signalized intersections studied in the Updated Proposed Action would also be expected to meet the CO NAAQS.

Overall, it can reasonably be concluded that the Updated Proposed Action with revised traffic counts (compared to the 2005 study) is not expected to increase CO emissions compared to the No-Build Alternative at the two signalized intersections since traffic volumes will remain the same and LOS will be the same or improve for the AM and PM peak hours. These conclusions coupled with monitored CO background values in the area being well below the NAAQS, along with previous worst-case hot spot modeling showing CO impacts below the NAAQS, show the project is not expected to significantly impact air quality and would not cause or contribute to a violation of the CO NAAQS.

Greenhouse Gases

With the recent withdrawal of federal guidance addressing greenhouse gas analyses and climate change, a greenhouse gas assessment was not conducted.

Mobile Source Air Toxics

FHWA guidance (2016) specifies Mobile Source Air Toxics (MSATs) to include acrolein, benzene, 1,3 butadiene, diesel particulate matter, formaldehyde, naphthalene, and polycyclic organic matter. Following FHWA guidance, which specifies three possible tiers of analysis and associated criteria depending on specific project circumstances, this project may be categorized as one with low potential MSAT effects based on the criteria specified in FHWA guidance and the forecast traffic volumes for this project. A qualitative assessment was therefore conducted for the project, following FHWA guidance for projects with low potential impacts.

Overall, the best available information indicates that, nationwide, regional levels of MSATs are expected to decrease in the future due to ongoing fleet turnover and the continued implementation of increasingly more stringent emission and fuel quality regulations. Nonetheless, technical shortcomings

of emissions and dispersion models and uncertain science with respect to health effects effectively limit meaningful or reliable estimates of MSAT emissions and the effects of this project at this time. While it is possible that localized increases in MSAT emissions may occur as a result of this project, emissions will likely be lower than present levels in the design year of this project as a result of USEPA's national control programs that are projected to reduce annual MSAT emissions by over 80 percent between 2010 and 2050. Although local conditions may differ from these national projections in terms of fleet mix and turnover, vehicle-miles-traveled (VMT) growth rates, and local control measures, the magnitude of the USEPA-projected reductions is so great (even after accounting for VMT growth) that MSAT emissions in the project area are likely to be lower in the future in nearly all cases.

Project Status in the Statewide Transportation Improvement Program (STIP)

At the time of this analysis, the USEPA Green Book shows these towns are designated as an attainment area for all criteria pollutants. Notwithstanding that listing in the USEPA Green Book, federal conformity requirements, including specifically 40 CFR 93.114 and 40 CFR 93.115, apply to the project as the area in which it is located (Boston-Manchester-Portsmouth SE, NH) is one affected by a recent court decision that reinstates conformity requirements nationwide associated with the 1997 ozone NAAQS that had previously been eliminated with the revocation by USEPA of that NAAQS in 2015.

After the Court issued its ruling in February 2018, the USEPA filed a petition for rehearing on various issues, both as to the merits of the Court's ruling and the remedy imposed by the Court. On September 14, 2018, the Court denied the USEPA's request for rehearing on the merits but stayed its vacatur of the transportation conformity aspects of its ruling until February 16, 2019. In essence, the Court provided the USEPA with one year from the date of its original decision to implement its ruling, and that year expired on February 16, 2019. On October 1, 2018, FHWA released *Updated Interim Guidance on Conformity Requirements for the 1997 Ozone NAAQS* which states in part, “All planning and project development actions (including NEPA approvals) in ‘orphan’ areas taken prior to this date may proceed and are not subject to conformity requirements for the 1997 ozone NAAQS.” Conformity determinations for the 1997 ozone NAAQS will be required on applicable plans, TIP, and project actions after February 15, 2019.

For transparency, the project is currently included in the Statewide Transportation Improvement Program (STIP) FY 2019 – 2022 (10044E) designated as a project not regionally significant and was included in the latest conformity finding and meets the latest State Implementation Plan (SIP) which was approved by FHWA dated October 11, 2018.

Indirect Effects and Cumulative Impacts

A qualitative assessment of the potential for indirect effects and cumulative impacts attributable to this project concluded that the potential effects or impacts are not expected to be significant given available information from pollutant-specific analyses (CO, MSATs, and ozone) and the regional conformity analysis. The CO and MSAT qualitative assessments and the regional conformity analysis conducted for this project are considered indirect effects analyses because they address air quality impacts attributable to the project that occur at a later time in the future. Those assessments demonstrate that in the future:

1) air quality impacts from CO would not cause or contribute to violations of the CO NAAQS;

2) MSAT emissions from the affected network would be significantly lower than they are today; and
3) the mobile source emissions budgets established for the region for purposes of meeting the ozone NAAQS will not be exceeded.

Regarding the potential for cumulative impacts, the EPA's air quality designations for the region reflect, in part, the accumulated mobile source emissions from past and present actions. Since the EPA has designated the region to be in attainment for all of the NAAQS, the potential for cumulative impacts associated with the project is not expected to be significant. With the recent court decision that reinstates conformity requirements in the project region (i.e. Boston-Manchester-Portsmouth SE, NH), the regional conformity analysis conducted by NHDOT represents a cumulative impact assessment for purposes of regional air quality. The conformity analysis quantifies the amount of mobile source emissions for which the area was designated nonattainment that will result from the implementation of all reasonably foreseeable regionally significant transportation projects in the region (i.e. those proposed for construction funding over the life of the region's transportation plan.

The most recent conformity analysis was completed in 2018, with FHWA issuing a conformity finding on October 11, 2018, for which the project was included. The analysis demonstrated that the incremental impact of the proposed project on mobile source emissions, when added to the emissions from other past, present, and reasonably foreseeable future actions, is in conformance with the SIP and will not cause or contribute to a new violation, increase the frequency or severity of any violation, or delay timely attainment of the NAAQS established by the EPA.

Operational (Permanent) Impacts

The Updated Proposed Action will have negligible changes to the air quality conditions currently present in the project area.

Construction (Temporary) Impacts

Emissions may be produced in the construction of this project from heavy equipment and vehicle travel to and from the site, as well as from fugitive sources. Construction emissions are short term or temporary in nature. To mitigate these emissions, all construction activities are will follow current NHDOT best management practices.

Status of 2005 EA and FONSI Environmental Commitments and Mitigation Measures

The Updated Proposed Action has been evaluated for potential impacts to air quality and any required mitigation measures. Similar to the 2005 EA, this 2021 reevaluation has followed the standards based upon the current FHWA criteria and impacts are not anticipated to occur.

2.3 Noise

2.3.1 Relevant Findings of the 2005 EA

The NHDOT and FHWA noise impact assessment procedures were used to identify noise receptor areas to predict existing and future highway noise levels, to determine project noise impacts, and to evaluate noise mitigation measures in the project area.

Noise is defined as unwanted or excessive sound. Sound becomes unwanted when it interferes with normal activities such as sleep, work, or recreation. The individual human response to noise is subject to considerable variability since there are many emotional and physical factors that contribute to the differences in reaction to noise. Sound (noise) is described in terms of loudness, frequency, and duration. Loudness is the sound pressure level measured on a logarithmic scale in units of decibels (dB). For community noise impact assessments, sound level frequency characteristics are based upon human hearing, using an A-weighted (dBA) frequency filter. The A-weighted filter is used because it approximates the way a human hears sound.

The following general relationships exist between hourly traffic noise levels and human perception:

- A 1 or 2 dBA increase/decrease is not perceptible to the average person.
- A 3 dBA increase /decrease is a doubling/halving of acoustic energy but is just barely perceptible to the human ear.
- A 10 dBA increase/decrease is tenfold increase/decrease in acoustic energy but is perceived as a doubling/halving in loudness for the average person.

The FHWA established noise abatement criteria to help protect the public health and welfare from excessive vehicle traffic noise. The noise analysis presented in the 2005 EA evaluated for the highest hourly noise levels in the project area, which were found to occur during the evening peak hour traffic data, which was conducted during peak and off-peak traffic periods. The project area was evaluated where a total of 500 receptor sites were identified for the entire project corridor (6 miles) and 105 of the 500 were located within the current project area under study for this written reevaluation (1.8 mile segment) including both residential and commercial locations.

The 2005 noise analysis predicted future sound levels for two future conditions, including 2024 no-build condition and 2024 build condition. It was determined that certain receptor areas under the 2024 no-build condition would experience an increase in noise (in excess of the NH Noise Abatement Criteria or NAC) due to traffic growth overtime. It was determined that certain receptor areas in the 2024 build condition would experience an increase in noise (approaching or exceeding the NAC). It was anticipated that the receptors would experience an increase of 3 to 5 dBA, but most would experience an increase of 1 to 2 dBA.

The 2005 EA also evaluated the impacted receptors for noise mitigation measures. Measures such as traffic management (re-routing trucks), alterations of horizontal and vertical alignments, buffer zones, and insulation of public buildings were deemed not appropriate or effective for this project. Noise barriers were also considered. The feasibility and reasonableness of constructing noise barriers were evaluated and determined not feasible because of the acoustical and engineering restrictions as well as safety conditions due to decreased lines of sight.

Construction activities were also evaluated for noise impacts. It was determined that construction activities would result in a substantial but temporary noise impact to receptors at various locations within the project corridor. Noise levels would vary based upon the type and number of pieces of construction equipment active at any one time. In general, the construction noise would be limited to daylight hours.

2.3.2 Updated Impact Analysis

The Updated Proposed Action was assessed in accordance with FHWA and NHDOT noise assessment regulations and guidelines. FHWA has also published a guidance document to support the new regulations. NHDOT prepared revisions to its noise policy in accordance with FHWA's requirements and revised policy. The revised "Policy and Procedural Guidelines for the Assessment and Abatement of Highway Traffic Noise for Type I & II Highway Projects" (Noise Policy) is dated November 2016, and has been approved by FHWA. The analysis and technical report were prepared by Harris Miller Miller & Hanson Inc. (HMMH). The following information is a summary of the HMMH report, Noise Analysis Technical Report Route 125 Improvements, Plaistow and Kingston, New Hampshire, July 2020.

Noise Abatement Criteria

To assess the degree of traffic noise impact on human activity, the FHWA established NAC for different categories of land use. These levels "represent the upper limit of acceptable traffic noise conditions." The NAC "represent a balancing of that which may be desirable with that which may be achievable." According to the regulations, traffic noise impact occurs when the predicted traffic noise levels approach or exceed the NAC, or when the predicted traffic noise levels substantially exceed the existing noise levels. The regulations further state that noise impact should be assessed for the loudest hour of the day in the design year.

The NAC are given in terms of the hourly, A-weighted, equivalent sound level in decibels (dBA). The A-weighted sound level is a single number measure of sound intensity with weighted frequency characteristics that corresponds to human subjective response to noise. Most environmental noise (and the A-weighted sound level) fluctuates from moment to moment, and it is common practice to characterize the fluctuating level by a single number called the equivalent sound level (L_{eq}). The L_{eq} is the value or level of a steady, non-fluctuating sound that represents the same sound energy as the actual time-varying sound evaluated over the same time period. For traffic noise assessment, L_{eq} is typically evaluated over a one-hour period and may be denoted as $L_{eq}(h)$.

Existing Noise Environment and Measurements

Existing noise conditions within the project area were evaluated to assist in determining the noise impacts of the Updated Proposed Action. A noise measurement program was conducted, consistent with FHWA and NHDOT recommended procedures, to document existing ambient noise levels at noise-sensitive locations in the study corridor, and to provide a means for validation of the TNM noise prediction model.

Noise measurements were conducted at five short-term sites on May 5, 2020. The short-term measurements characterized existing noise levels in the project area but were not necessarily conducted during the loudest hour of the day or during peak periods. A primary purpose of the noise measurement program is to provide a basis for validating the noise prediction computer model used to project future

noise impacts. Therefore, measurements must be conducted when traffic is freely flowing on the project roadways. Simultaneous traffic counts are conducted along with the noise measurements to provide the traffic data needed for the noise model validation effort.

The dominant source of noise at the sites was traffic on NH 125. Noise sources that were not related to traffic include aircraft operations, wind in the trees, birds, and human-related activities.

Noise Impact Assessment

The expected noise impact from the Updated Proposed Action was assessed according to FHWA and NHDOT noise assessment guidelines. As previously noted, a noise impact would occur wherever project-generated noise levels are expected to approach or exceed the NAC at noise-sensitive land uses during the loudest hour of the day. No impacts due to substantial increases in existing noise levels were identified for this project.

Noise levels are expected to approach or exceed the FHWA NAC for Activity Category B (residential and undeveloped land) at two residences under the Existing 2018 conditions. Design-year 2046 noise levels are predicted to approach or exceed the FHWA NAC for Activity Category B (explain) at four residences in the No-Build alternative, and at one residence under the Build alternative. These homes would be exposed to noise levels that equal or exceed 66 dBA L_{eq}.

The noise impacts for the existing (2018) conditions are at three residential homes. Two of those impacts are proposed property acquisitions to implement the Updated Proposed Action under the 2046 Build scenario, 14 (Parcel 36, Whitney Garage) and 26 (Parcel 57, Kingston Foreign Auto) NH 125 in Kingston, so they were not evaluated for impact in the Build case. The noise impacts for future No-Build scenario are the same as the existing with the addition of D-01, due to the increase in traffic volumes projected. Noise abatement was examined for the impacted property and is addressed in the following section. See Figure 6 for the locations of impacted residences and noise barrier modeling locations.

Table 2.3-1: Number of Impacted Receptors within Project Area for All Scenarios

Alternative	Impact Type	Land Use and NAC Activity Category	Total Impacts
Residential B			
Existing	NAC	3	3
No Build	NAC	4	4
Build	NAC	1 (3*)	1 (3*)
* Including two potential acquisitions *Source: HMMH, 2020*			

Noise Abatement Measures

FHWA has identified certain noise abatement measures that may be incorporated in projects to reduce traffic noise impact. In general, mitigation measures can include alternative measures (traffic management and the alteration of horizontal and vertical alignment), in addition to the construction of noise barriers.

Alternative Noise Abatement Measures

Traffic management measures that are sometimes effective include reduced speeds and truck restrictions for the design-year Build alternative; however, neither of these measures is currently planned for the Updated Proposed Action. Reduced speeds along NH 125 would not be an effective noise mitigation measure since a substantial decrease in speed is necessary to provide a significant noise reduction. A 10 mile per hour (mph) reduction in speed will result in only a 2 dB decrease in noise level. Restricting truck usage on the NH 125 itself is not practical since few alternative routes for trucks exist. Diversion of truck traffic to other roadways would increase noise levels in residential areas along those routes. Noise mitigation measures of these types can also prove costly or difficult to enforce.

The alteration of horizontal alignment is limited by the available right-of-way within the project area. Significant noise reduction at noise sensitive locations would require large alignment shifts which would necessitate additional property acquisitions and could expose additional sites to project-generated noise. Also, the alteration of vertical alignment of the proposed roadway is not considered to be a feasible noise abatement measure. Depressing the roadway could require taking of additional property for the sloped embankments, or excessive costs for the construction of sound-absorptive retaining walls or a tunnel; elevating the roadway could allow noise to propagate farther into the community at higher levels.

The use of buffer zones as a mitigation measure would be a costly and impractical undertaking. The acquisition of property for buffer zones increases the distance between the road and noise-sensitive land use. Such a mitigation measure is beyond the scope of the project.

Noise Barriers

The only remaining abatement alternative investigated was the construction of noise barriers. The feasibility of noise barriers was evaluated in locations where noise impact is predicted to occur in the Build condition. The only site predicted to be impacted and expected to remain after roadway construction is receptor H-01, at 70 NH 125 in Kingston, at the northern end of the project corridor. The two proposed property acquisitions, PA-01 and PA-02 would also be impacted in the design year. Noise barrier feasibility and reasonableness has been evaluated for these sites as well, since there is potential that they may remain after construction. Barriers were evaluated with TNM 2.5 for each of these impacted properties. The barriers have been located within the state right-of-way, and do not extend along NH 125 beyond the limits of the impacted parcels. Since each of the properties have driveway access to NH 125, that access must be maintained. Further, safe sight distances are necessary for entering and exiting the driveways, so barriers cannot be located directly adjacent to the driveways, and must be set back somewhat.

The potential barrier locations for the three properties are shown in Figure 6. Given the necessary gaps in the barriers for driveway access, barriers that are able to achieve the necessary noise reductions of 5 decibels for feasibility and 7 decibels for reasonableness are not common in these situations. The following paragraphs describe the barriers that were evaluated for each impacted property. Barriers at NHDOT's maximum height of 25 feet were evaluated in all cases, but none were able to achieve a noise reduction of 7 decibels to enable them to be both feasible and reasonable. A description of the barriers evaluated follows.

Barrier 1 is located along the southbound side of the NH 125 right-of-way on either side of the existing driveway of the residential house at 14 NH 125 in Kingston, Site PA-01. The property this barrier would benefit is a proposed acquisition. The total length of the barrier evaluated is 130 feet, and with a height of 25 feet, the total surface area is 3,250 square feet. The predicted noise reduction of the barrier at PA-01 is 4 decibels. Since the barrier would not meet the criterion of 5 decibels noise reduction for feasibility at the maximum barrier height, the barrier would not be feasible.

Barrier 2 is located along the southbound direction of the NH 125 right-of-way on either side of the existing driveway for the residence at 26 NH 125 in Kingston, Site PA-02. The property this barrier would benefit is a proposed acquisition. The total length of the potential barrier is 205 feet, the height is 25 feet, and the surface area is 5,125 square feet. The noise reduction behind the barrier at PA-02 is 6 decibels, so the barrier potentially would be feasible. However, since the barrier does not meet the required noise reduction goal of 7 dBA at the maximum barrier height, the barrier would not be reasonable.

Barrier 3 is located along the southbound side of the NH 125 right-of-way on either side of the driveway for the residential property at 70 NH 125 in Kingston, Site H-01. The total length of the proposed barrier is 169 feet, and with a height of 25 feet, the total surface area is 4,229 square feet. The noise reduction behind the barrier at H-01 is 4 decibels. Since the barrier would not meet the criterion of 5 decibels noise reduction for feasibility at the maximum barrier height, the barrier would not be feasible.

Operational (Permanent) Impacts

The Updated Proposed Action will have negligible changes to the noise conditions currently present in the project area.

Construction (Temporary) Impacts

According to NHDOT policy, construction noise related to transportation projects shall be addressed in the project's environmental documentation phase. Most projects will not require modeling or any form of analysis associated with construction-related noise. In most cases, effective control of highway construction noise will be achieved by design considerations, sequence of operations, source control, site control, time and activity constraints, and community awareness, as practicable.

The following are general construction noise abatement measures that may be taken in areas where construction noise impacts are likely to occur:

- For portions of the project near residential areas, any work that produces objectionable noise between 10 P.M. and 6 A.M. should be minimized.
- Use of impact devices, such as jackhammers, pavement breakers, and hoe rams shall be minimized.
- When feasible, the Contractor shall establish haul routes that direct his vehicles away from developed areas and ensure that noise from hauling operations is kept to a minimum.
- Source noise control measures (i.e. emission limits, quieter equipment and/or processes) can be used. Equipment shall in no way be altered or allowed to fall into a state of disrepair that would result in noise levels that are greater than those produced by the original equipment.

- Path noise control measures (i.e., portable noise barriers, panels, enclosures and acoustical tents) can be used in connection with concrete trowels, hydraulic break rams, pile drivers, rock drillers, etc.

Status of 2005 EA and FONSI Environmental Commitments and Mitigation Measures

The Updated Proposed Action has evaluated the impacted receptors for noise mitigation measures. Measures such as traffic management (re-routing trucks), alterations of horizontal and vertical alignments, buffer zones, and insulation of public buildings were deemed not appropriate or effective for this updated design. Three noise barriers were also considered but all three were found to not be feasible and/or unreasonable in accordance with the NHDOT's Noise Policy.

Similar to the 2005 EA, this 2021 reevaluation has followed the standards based upon the current NHDOT Noise Policy and FHWA criteria.

2.4 Socio-Economic Resources

2.4.1 Relevant Findings of the 2005 EA

As identified in the 2005 EA, seven buildings (both residential and commercial) were proposed for acquisition within the 1.8-mile project corridor in Kingston. These seven acquisitions were not anticipated to have measurable economic impacts on Kinston tax revenue.

No community facilities, such as schools, libraries or emergency facilities would be impacted by the Proposed Action. Since the Proposed Action consisted of a widening of an existing highway corridor with few residences, neighborhood character or cohesion was not anticipated to be adversely altered. The properties proposed for acquisition within the 1.8-mile project corridor are listed in Table 2.4-1.

Table 2.4-1: Business and Residential Acquisitions (2004)

Current Parcel No.	2004 Parcel No.	Res/ Bus	2005 Owner/Address	Tax Map #	Town	Comment
56	1	Res	Leate/Varney, Shannon 42 NH 125 Kingston, NH 03848	R-5/10	Kingston	Acquired by the State of NH
57	2	Bus	Geoffroy, Robert 46 NH 125 Kingston, NH 03848	R-5/11	Kingston	Occupied by Kingston Foreign Auto
30	173	Res	Brox Industries, Inc. 1471 Methuen Street Dracut, MA 01826	R-3/19	Kingston	1 ½ story wood frame house to be acquired and demolished
36	178A	Bus	Whitney, Robert 1 Dorre Road Kingston, NH 03848	R-3/28A	Kingston	Occupied by Whitney's Garage
39	179	Res	Whitney, Jason 26 NH 125 Kingston, NH 03848	R-3/38B	Kingston	House is within NH 125 (State of NH) right-of-way
42	181	Res	Fredrick, Kenneth 32 NH 125 Kingston, NH 03848	R-4/2	Kingston	Currently owned by Comcast
60	56	Res	Prenaveau, Bertin 49 NH 125 Kingston, NH 03848	R-4/2	Kingston	Only the house to be acquired

Note: Residences listed are single family.

Environmental Justice

Executive Order 12898 requires that federal agencies examine the potential environmental effects of proposed federal actions to determine if disproportionately high and adverse effects would result on minority or low-income populations. Based upon the data presented in the 2000 U.S. Census, it was determined in the 2005 EA that the Proposed Action did not affect any singular areas or neighborhoods where populations of low income, or of specific races of color or national origin, live or work. This analysis included both Plaistow and Kingston.

2.4.2 Updated Impact Analysis

The Updated Proposed Action for the 1.8-mile project area calls for a reduction in the number of building acquisitions and includes only two buildings previously identified at the 2004 Public Hearing. The buildings that are proposed for acquisition within 1.8-mile corridor include those listed in Table 2.4-2.

Table 2.4-2: Business and Residential Acquisitions (2021)

Current Parcel No.	2004 Parcel No.	Res/ Bus	Owner/Address	Tax Map #	Town	Comment
30	173	Res	Brox Industries, Inc. 1471 Methuen Street Dracut, MA 01826	R-3/19	Kingston	1 ½ story wood frame house to be acquired and demolished
39	179	Res	Thomas Whitney Living Trust 26 NH 125 Kingston, NH 03848	R-3/38B	Kingston	1 story wood frame house to be acquired and demolished. House is within state-owned right-of-way

Note: Residences are single family.

The acquisition of these residential buildings will result in the displacement of households occupying those dwellings. The acquisitions will be carried out in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act. It is assumed that available replacement housing is available in Kingston and the region based upon the number of functionally similar, decent and safe residential dwellings for sale. The multiple-listing service for the Town of Kingston shows adequate number of replacement homes for sale, in a similar price range.

There were no discernible impacts on the neighborhoods involved. No need for special relocation considerations to resolve the needs of the displaced have currently been identified.

Should locating affordable housing for any resident displaced by the alignment within the housing inventory prove unfeasible, last resort housing will be made available if the need presents itself, in accordance with NHDOT, Right-of-Way Relocation Policy and Procedures Manual. Property acquisitions and easements deemed necessary shall be completed by the Bureau of Right-of-Way (Environmental Commitment 7).

There will be only a minimal impact on property tax revenues resulting from the Updated Proposed Action since the majority of the project and its construction will take place within existing State right-of-way. NHDOT has conducted community coordination to obtain input on the project (Section 1.4) and the Updated Proposed Action is consistent with all local plans for growth in the future. The potential for secondary growth or development will continue to be regulated by local zoning.

Similar to 2005, no community facilities, such as schools, libraries, or emergency facilities, will be impacted. Since this is a widening of an already busy highway corridor with relatively few residences along it, neighborhood character or cohesion is not anticipated to be adversely altered.

Easements

Various easements are necessary to implement the project, both temporary and permanent. Table 2.4-3 lists the easements, both temporary and permanent, that will be necessary to implement the project.

Table 2.4-3: Easements Required for the Updated Proposed Action (2021)

Parcel #	Property Type	Owner	Town	Temporary or Permanent
1	Commercial	Granville Realty Associates	Plaistow	Both
2	Commercial	The Neale Realty Trust	Plaistow	Permanent
3	Commercial	Chaya Brothers Realty, LLC	Plaistow	Permanent
5	Commercial	PPR Realty Trust	Plaistow	Permanent
8	Commercial	Nicky Realty Trust and Gregoire, Richard & Sue E.	Plaistow	Permanent
9	Commercial	Plaistow Storage Realty Trust	Plaistow	Both
10	Commercial	Panniello Plaistow 216 Realty Trust	Plaistow	Both
11	Commercial	Panniello Plaistow 216 Realty Trust	Plaistow	Permanent
12	Commercial	Panniello Plaistow 214 Realty Trust	Plaistow	Permanent
13	Commercial	DBH Realty of Plaistow, LLC.	Plaistow	Both
14	Residential	Dick, Alvin W, & Gladys I.	Plaistow	Permanent Slope
15	Residential	Bowen, John H, and Cheri L.	Plaistow	Both
17	Residential	Tasbak, LLC	Kingston	Permanent
18	Residential	Stephen R, Thomas and Judith R, Thomas Revocable Trust & Lori E Thomas Revocable Trust	Kingston	Both
20	Commercial	Jeff-Re Realty Trust	Kingston	Permanent
21	Residential	Allen Steven B.	Kingston	Both
22	Commercial	R&G Realty Trust	Kingston	Both
23-LU1	Commercial	Teatao LLC & Village at Granite Field Condominium	Kingston	Permanent
23-LU3	Commercial	Diamond Oaks Golf Club, LLC & Village at Granite Fields Condominium	Kingston	Both
24-1	Commercial	Ramey, Wadih	Kingston	Both
26	Commercial	Daher Motors of Kingston, Inc.	Kingston	Temporary
28	Commercial	Breman Trust	Kingston	Both
31	Commercial	Daher, Carlos M. and Christine	Kingston	Both
32	Commercial	Donna C. Damphousse Revocable Trust of 2002	Kingston	Both
34	Commercial	Commerce Park Condiminium Association & Little Deer Valley LLC	Kingston	Both
36	Commercial	Whitney Family Trust	Kingston	Both
37	Commercial	Kingston Place, LLC	Kingston	Temporary
38	Commercial	Sarcasm LLC	Kingston	Both
39	Residential	Jason Thomas Whitney Living Trust	Kingston	Permanent
40	Commercial	Burtt, Irene M.	Kingston	Both
41	Residential	State of NH (DOT)	Kingston	Permanent
42	Residential	State of NH (DOT)	Kingston	Permanent
43	Commercial	Fieldstone Meadow Realty, LLC	Kingston	Permanent
44	Residential	Phyllis L. Crowell Revocable Trust of 2008	Kingston	Both
45	Residential	Januszewski, Robyn A.	Kingston	Permanent
47	Residential	Salinas, Marc R. & Katherine P.	Kingston	Both

49	Residential	Laurence F. Radford, SR. and Madeline K. Radford Irrevocable Trust	Kingston	Both
51	Commercial	Comcast of Connecticut/Georgia/Massachusetts/New Hampshire/New York/ North Carolina/Virginia/Vermont LLC	Kingston	Permanent
52	Commercial	State of NH (DOT)	Kingston	Permanent
54	Commercial	Young, Roger S.	Kingston	Permanent
55	Commercial	John D. Lancaster Revocable Trust	Kingston	Both
57	Commercial	Geoffroy Route 125 Realty Trust	Kingston	Temporary
58	Commercial	CB2 Realty LLC	Kingston	Both
59	Commercial	Geoffroy Route 125 Realty Trust	Kingston	Both
60	Commercial	CB2 Realty LLC	Kingston	Both
61	Commercial	Wallace, Dean B.	Kingston	Both
62	Commercial	CB2 Realty LLC	Kingston	Both
63	Commercial	Jase Realty, LLC	Kingston	Both
64	Commercial	Tasbak, LLC	Kingston	Both

Refer to the Public Hearing Plan for the locations of these proposed easements.

Environmental Justice

The 1.8-mile project corridor is located within Plaistow and Kingston. Population characteristics as derived from the most recent data from the U.S. Census (2010 U.S. Census and the American Community Survey estimates for 2013 to 2017) are detailed in Tables 2.4-4 and 2.4-5.

Table 2.4-4: Population Characteristics

2013-2017 American Community Survey 5-Year Estimates	Town of Plaistow	Town of Kingston	County of Rockingham
Total Population	7,642	6,141	302,479
Under 5 years age	209	450	13,971
5 years to 19 years	1,486	835	53,737
20 years to 64 years	4,384	3,984	186,325
65 years and over	1,107	918	48,446
Median Age	39.7	44.8	44.1
Median Household Income	$84,125	$93,096	$85,619
In Labor Force	4,438	4,994	179,284

Minority Characteristics

The percent of each race in the two towns as compared to Rockingham County as a whole is shown in Table 2.4-5.

Table 2.4-5: Minority Characteristics

2013-2017 American Community Survey 5-Year Estimates	Town of Plaistow	Town of Kingston	County of Rockingham
Percent White	95.7%	95.4%	95.1%
Percent Black	0.4%	0.0%	0.7%
Percent Asian	0.9%	0.6%	1.9%
Percent American Indian	0.2%	3.2%	0.1%
Percent of Hispanic Origin	3.0%	0.5%	2.7%

Executive Order 12898 requires that federal agencies examine the potential environmental effects of proposed federal actions to determine if disproportionately high and adverse effects would result on minority or low-income populations. Based upon the data presented by the U.S. Census, it was determined that the Updated Proposed Action does not affect any singular areas or neighborhoods where populations of low income, or of specific races of color or national origin, live or work. This analysis included both the Plaistow and Kingston.

Construction (Temporary) Impacts

The total construction cost to implement the Updated Proposed Action is estimated to be $14.5 million, which is less than the original cost estimate of the five-lane typical section. Impacts caused by construction activities will be short-term. Construction activities may result in temporary adverse impacts to traffic flow. Construction activities will result in temporary noise impacts to sensitive receptors at various locations along the project's length. Noise levels in the vicinity of construction activities will vary widely depending on the type and number of pieces of construction equipment active at any one time.

Construction will create increased truck traffic on secondary roads. Access to NH 125 will be maintained although unavoidable delays will occur. Temporary delays will be experienced while construction occurs along the highway, traffic is shifted temporarily from one side to the other, equipment is moved around, and materials are delivered to work sites. Construction activities will be coordinated with property owners and businesses to assure that reasonable access to properties is maintained. Temporary signing and other issues related to temporary relocation of access points necessitated by construction activities, will be appropriately addressed on an individual basis.

Status of 2005 EA and FONSI Environmental Commitments and Mitigation Measures

Since there are only minor changes to socioeconomic resources, and the number of building acquisitions has been reduced, the environmental commitments and mitigation measures outlined in the 2005 EA are sufficient to mitigate impacts to socioeconomic resources. If during the Final Design phase of the project, additional properties/buildings are identified as acquisitions beyond what is shown in the official Public Hearing Plan (2021), the protocol as outlined by state and federal law, as required by the Uniform Relocation Assistance and Real Property Acquisition Act of 1970, will be followed.

2.5 Land Use and Public Facilities

2.5.1 Relevant Findings of the 2005 EA

In the EA, the project area was identified as primarily commercial in Plaistow with mixed commercial and residential as one proceeds northward into Kingston. Land use just off the frontage on NH 125 was found to be largely rural residential. Car dealerships, self-storage facilities, restaurants, gas stations, landscaping suppliers, small office buildings, and light industries were the primary business types along the highway itself. Few residences were located within the corridor.

In 2005, the Plaistow zoning districts within the project area were Commercial (northbound side) and Industrial (southbound side). The Kingston zoning district was primarily Rural Residential with some areas of Industrial and Single Family Residential.

There are no municipally owned facilities directly on NH 125. The South Kingston Fire Station is located approximately 500 feet west of NH 125 on Hunt Road, outside of the project corridor. A Kingston Highway Garage is approximately 0.25 miles east of NH 125 on Newton Junction Road, outside of the project corridor. Both the Timberlane Regional High School and Middle School are located over one mile south of the project area on Greenough Road in Plaistow. The principal access to both schools is by way of NH 125.

There is one cemetery along NH 125 within the project area in Kingston: Happy Hollow Cemetery (near the intersection of Dorre Road).

2.5.2 Updated Impact Analysis

The Updated Proposed Action calls for a reduced project footprint as compared to the 2005 Proposed Action and is located almost entirely within State right-of-way. The Updated Proposed Action calls for the acquisitions of two buildings, as compared to the seven acquisitions proposed in the 2005 EA within the same 1.8-mile project area (Section 2.4).

A newly proposed development, consisting of three six-unit commercial buildings (one-story each), is currently undergoing the Kingston Site Plan approval process. This development, Fieldstone Industrial Park, would be accessed by a single ingress/egress point off the southbound side of NH 125 located approximately 300 feet south of Debra Road. The development is located on Parcel 43 (formerly Parcel 13) at 34 NH 125.

Current zoning districts are largely the same as in 2005 with few changes. The zoning in the portion of the project located within Plaistow remains Commercial (northbound side) and Industrial (southbound side). The portion of the project within Kingston remains largely Rural Residential on both northbound and southbound sides of NH 125.

There have been minimal changes in development within the 1.8-mile project corridor since the 2005. Change has occurred in some businesses that occupy buildings and properties. There are no changes in the project design (Updated Proposed Action) that would alter existing land use or contradict current zoning districts.

There are no new public facilities within the project area since 2005. The Updated Proposed Action does not propose impacts to the Happy Hollow Cemetery, owned by Kingston. This cemetery is not eligible for the National Register of Historic Places.

Land conversions are proposed to accommodate the water quality treatment areas. A total of seven water quality treatment areas are proposed within the 1.8-mile project area, which will require conversion of a total of 3.1 acres of existing undisturbed vegetation; however, some vegetation will return and remain persistent. All but one of the treatment areas are consistent with what was proposed in the 2005 EA (and 2004 Public Hearing Plans). The change includes abandoning the previously proposed treatment area located at the rear of Parcel 37 (formerly Parcel 285) and Parcel 38 (formerly Parcel 284) in Kingston. The new water quality treatment area is proposed to occur on Parcel 34 (formerly Parcel 287), located to the south of Parcels 37 and 38 due to the following reasons:

- Parcel 34 contains a larger, flatter area with no existing infrastructure while still allowing for future development of the parcel.
- The proposed water quality treatment area on Parcel 34 collects and treats additional runoff than could be accommodated within a water quality treatment area on Parcels 37 and 38, which has space constraints due to wetlands and expansion of the uses of these parcels since the 2005 EA, and leach field and water supply wells on the adjacent parcel.
- Parcel 34 has numerous potential access points that will be evaluated during final design to select the best permanent access point for the long-term maintenance of the water quality treatment area, whether independent of, or in conjunction with any future expansion on the parcel.

The area needed to construct this stormwater treatment will be subject to a permanent easement along the southern boundary (for the access road) and along the rear of the parcel (for placement of the water quality treatment area).

Parcel 68 (formerly 9) in Kingston is owned by the NHDOT and contains one water quality treatment facility that was constructed as part of a previously constructed segment of the overall six-mile project. Parcels 67 and 68 (formerly Parcels 8 and 9) are subject to a Restrictive Covenant, but the addition of a second stormwater treatment area is not prohibited by the covenant.

In addition to the property owner coordination to implement the water quality treatment areas, coordination with the utility companies with infrastructure within the project area will occur during Final Design (Environmental Commitment 6).

The Updated Proposed Action would be undertaken primarily within the existing state right-of-way. There is currently a high degree of interaction among the corridor communities for shopping, job commuting, personal/business services. The proposed improvements would improve this interaction by improving traffic flow, operational efficiency and increased safety.

Operational (Permanent) Impacts

The Updated Proposed Action anticipates resulting in permanent impacts to land use similar to what was described in the 2005 EA. With a smaller project footprint, minimal land use changes are anticipated and a reduction in the number of building acquisitions is proposed, therefore the assessment in the EA is still applicable.

Construction (Temporary) Impacts

As mentioned above, the footprint for the Updated Proposed Action is smaller than the footprint evaluated in the 2005 EA. The construction mitigation measures for land use described in the EA remain applicable to the Updated Proposed Action.

2.6 Recreation and Conservation Lands

2.6.1 Relevant Findings of the 2005 EA

Information on public parks, recreation areas and conservation lands was obtained through field reconnaissance, interviews with the Towns of Plaistow and Kingston officials, NH Department of Resources and Economic Development (NHDRED), and the NH Office of Economics and Planning (NHOEP) (currently named the Office of Strategic Initiatives). This information was presented in the 2005 EA.

Any potential impacts on public parks and recreation areas (as well as historic sites) must be addressed under the Section 4(f) provision of the National Transportation Act of 1966. In addition, any properties which have received funding under the Land and Water Conservation Fund Act (LWCF), as administered by the U.S. Department of Interior, require special evaluation including specific requirements for mitigation under Section 6(f) of that Act.

The findings in 2005 revealed that no publicly owned parks or recreational areas, i.e., non-historic 4(f) resources, in the 1.8-mile project corridor would be impacted. There were no LWCF Section 6(f) properties and no Land Conservation Investment Program (LCIP) properties within the project corridor.

It was also determined that impacts on recreational 4(f) resources would not occur. Since no impacts on any public parks or recreational facilities were anticipated, mitigation was not proposed.

2.6.2 Updated Impact Analysis

The research conducted for the Updated Proposed Action resulted in the finding that parks and recreation lands are not located within the 1.8-mile project area. Since the 2005 EA, three parcels in Kingston that abut NH 125 within the project area are subject to Restrictive Covenant executed in 2007. These parcels include 67 and 68 (formerly Parcels 8, 9 and 9A and known as the Sullivan property), are located on the southbound side, just south of Newton Junction/Hunt Road and north of Bayberry Pond. The three parcels were acquired by the State of New Hampshire for the purposes of constructing a water quality treatment area and its protection for wildlife habitat qualities, natural vegetation, and other features. The Updated Proposed Action requires an additional water quality treatment area to be constructed on Parcels 67 and 68 (formerly Parcels 8 and 9). The Restrictive Covenant does not prohibit the construction of an additional water quality treatment area.

Based upon the NH GRANIT GIS database, additional conservation lands are in the vicinity of the project area but not within the project limits. These conservation lands include: Dorre Road Town Forest, located to the west of Bayberry Pond in Kingston; and portions of two properties, located on the Kingston-Plaistow municipal boundary. These properties are subject to a Conservation Easement managed by the Rockingham County Conservation District. Parcel 34, located in Kinston, is also subject

to a conservation easement; however, this project will not impact the parcel. See Figure 7 for the location of these conservation lands within the vicinity of the project area.

A summary of the research efforts conducted is provided below.

The Conservation Land Stewardship (CLS) Program is responsible for monitoring and protecting the conservation values of conservation easement lands in which the State of New Hampshire has invested through the Land Conservation Investment Program (LCIP). The CLS Program is located within the NH Office of Strategic Initiatives. The project has been reviewed by the CLS Program Coordinator, and it was determined that there are no LCIP properties within the project area (Exhibit 2).

The New Hampshire Land and Community Heritage Investment Program (LCHIP) is an independent state authority that makes matching grants to communities and non-profits to conserve and preserve natural, cultural and historic resources. LCHIP has reviewed the project and determined that no LCHIP properties exist in the area (Exhibit 3).

The Land and Water Conservation Fund (LWCF) is a program established by Congress in 1964 to create parks and open spaces; protect wilderness, wetlands and refuges; preserve wildlife habitat; and enhance recreational opportunities. The NH Division of Parks and Recreation is the State LWCF Manager. Section 6(f) of the Land and Water Conservation Act requires all property acquired or developed with LWCF assistance to be maintained perpetually in public outdoor recreation use. Any permanent or temporary use of a LWCF property must be reviewed and approved by the LWCF Manager and the National Park Service, and conversion of LWCF property requires mitigation. Based on a review of their LWCF files, the NH Division of Parks and Recreation has advised that there are no LWCF properties present in the project area (Exhibit 4).

Through coordination with local officials, and review of available GIS data, it has been determined that no other types of conservation land or public lands are located within the project limits.

Operational (Permanent) Impacts

The Updated Proposed Action is not anticipated to impact any parks or recreational lands. The water quality treatment area proposed on Parcels 67 and 68 will be located on land subject to a Restrictive Covenant but this activity is not prohibited. In addition, Section 4(f) and Section 6(f) properties will not be impacted by the project.

Construction (Temporary) Impacts

Construction impacts are not anticipated to occur to any parks, recreational lands, Section 4(f) or Section 6(f) properties. Construction impacts will occur on Parcels 67 and 68, subject to a Restrictive Covenant. The impacts to these parcels will be short in duration. Some vegetation will return to the area of disturbance and persist long term.

Status of 2005 EA and FONSI Environmental Commitments and Mitigation Measures

Minimal changes regarding land use have occurred since the 2005 EA, with no new parks, recreation land, or Section 6(f) properties are located within the project limits. Section 4(f) properties will not be impacted by the Updated Proposed Action. Parcels 67 and 68, located in Kingston, are subject to a

Restrictive Covenant but the short-term disturbance due to the construction of a water quality treatment area will be minimal.

Since the Updated Proposed Action would decrease the footprint presented in the 2005 EA the environmental commitments and mitigation measures remain unchanged.

2.7 Farmlands

2.7.1 Relevant Findings of the 2005 EA

The Farmland Protection Policy Act (FPPA) of 1984 requires that all Federal agencies assess the effect of converting existing or potential farmland areas to non-agricultural use. Conversion of farmland under FPPA is measured as the loss of important farmland soils due to the project. Under FFPA important farmland soils are classified into four types: prime farmland, unique farmland, farmland of statewide importance, and farmland of local importance. The GRANIT GIS website was utilized to identify important farmland soils along the project area. The classification of important farmland does not take into account whether the land is actively farmed or not. However, land that is currently developed or is identified in a community master plan for non-agricultural uses is exempt from consideration under the FPPA.

The research conducted resulted in the finding that only two types of important farmland soils were present in the project area: statewide importance and local importance. Farmland soils of statewide importance are those that economically produce high yields of crops when treated and managed according to acceptable farming methods. Statewide important farmland soils occurred in only one area, along NH 125 at Colonial Road in Kingston.

Farmland soils of local importance include certain additional farmland soils used for the production of food, feed, fiber, forage, and oilseed crops. The GRANIT database showed two areas of locally important farmland soils: the area surrounding NH 125 near Roadstone Road and extending north to the area surrounding Dorre Road, as well as the northern limit of the project area (just south of Newton Junction Road/Hunt Road), in Kingston. These soils front the highway and are commercially developed.

According to the 2005 EA, actively farmed land within the project area was not present in 2005.

2.7.2 Updated Impact Analysis

The Natural Resources Conservation Service (NRCS) database was reviewed to determine the current soil types in the project area. The data presented by the NRCS matches the data presented in the 2005 EA. Two types of important farmland soils are present in the project area: statewide importance and local importance. Current conditions are similar to the conditions presented in the 2005 EA. The majority of the area where NRCS soil data indicate the presence of farmland soils is overlain by commercial development and NH 125 itself. Therefore, these areas are developed land and should not be considered farmland.

The Farmland Conversion Impact Rating Form completed for the 2005 EA resulted in a score of less than 160 and no further action was required at that time. Since the footprint of Updated Proposed Action has been reduced in size compared to what was evaluated in the 2005 EA, the score from the Farmland

Conversion Impact Rating for the Updated Proposed Action would be less than the previous result. Therefore, the previously completed Farmland Conversion Impact Rating Form would still apply.

Based upon the research conducted for the Updated Proposed Action, actively farmed land within the project corridor is not present.

Operational (Permanent) Impacts

Overall, the permanent impacts to farmland soils resulting from the Updated Proposed Action will be less than what was indicated in the 2005 EA. The footprint has been reduced and therefore involves less impact.

Construction (Temporary) Impacts

Temporary impacts to existing farmlands are not anticipated to occur as a result of the Updated Proposed Action.

Status of 2005 EA and FONSI Environmental Commitments and Mitigation Measures

The 2005 EA included an environmental commitment that stipulated compensation if any farmlands are impacted during construction activities. However, no area currently used as farmlands would be impacted by the Updated Proposed Action. Therefore, this environmental commitment does not apply.

2.8 Contaminated Properties

2.8.1 Relevant Findings of the 2005 EA

As part of the 2005 EA, the project area was evaluated to identify known and potentially contaminated sites. Information on possible junkyards, leaking underground storage tanks, known toxic waste spills, agricultural chemical products, contaminated lands, landfills, and Resource Conservation and Recovery Act (RCRA)-defined generators was obtained from the GRANIT GIS database and as well as from FirstSearch (a database search company). The files at NHDES were researched for updates to the database information. Finally, a windshield survey was used to confirm the information compiled from these searches.

The following environmental databases were reviewed (provided by FirstSearch, a privately-owned vendor): National Priorities List (NPL); Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS); Resource Conservation and Recovery Act (RCRA) Treatment, Storage, and Disposal (TSD) facilities list; RCRA generators; RCRA corrective action sites (COR); state list of hazardous waste sites; state list of spills sites; Active Solid Waste Landfill (SWL) facilities; Leaking Underground Storage Tanks (LUST); and registered underground storage tanks (USTs) and aboveground storage tanks (ASTs). Database search radii were chosen generally in accordance with the ASTM E 1527-00 Standard Practice for Environmental Site Assessments.

No RCRA TSD, RCRA COR, or SWL facilities were identified within the specified ASTM search radii on any of the databases.

Based on site history, environmental file reviews, and a field reconnaissance, the following eight sites were identified by the database research and presented in the 2005 EA as potentially contaminated sites within the 1.8-mile project area. Complete details on these sites were presented in Initial Site

Assessment (ISA) reports prepared for this project in April 2002. The sites presented in the 2005 EA, from south to north, are listed in Table 2.8-1.

Table 2.8-1: Potentially Contaminated Sites Identified (2005)

Current Parcel No.	2005 Parcel No.	Site Name	Location
20	168	Complete RV	NH 125, Kingston
24	169	Bob Leavitt Auto	NH 125, Kingston
Unknown	290	Automobile Wholesalers North	NH 125, Kingston
36	178A	Whitney's Garage	NH 125, Kingston
37	285	Roderick Wholesale Florist	NH 125, Kingston
53	275	Kingston Collision Center	NH 125, Kingston
57	2	Kingston Foreign Auto	NH 125, Kingston
69	51	1st Century Auto Sales & Service	NH 125, Kingston

2.8.2 Updated Impact Analysis

Database searches and a "windshield" survey were performed during 2019 and 2020 to assist in identifying potentially contaminated sites or sites of concern relevant to the current project, the Updated Proposed Action.

The New Hampshire OneStop database and the database search (provided by EDR, Inc., a privately-owned vendor) were reviewed for records of hazardous materials, spills, leaking underground storage tanks or hazardous waste sites within 1,000 feet of the project area. Sites listed on the database underwent additional research to determine if there was a potential influence on the project area.

The following section summarizes the results of the additional research, by source. The two sources utilized to identify hazardous materials sites report in unique formats and distances. Sites identified in this hazardous materials records review are listed in Table 2.8-2, from south to north.

NHDES Onestop Database

The NHDES OneStop database was reviewed for records of hazardous materials, spills, leaking underground storage tanks or hazardous waste sites within 1,000 feet of the project area. The search revealed two aboveground storage tank (AST) sites, 17 hazardous waste generators, nine remediation sites, and four underground storage tank (UST) sites. Some of these records overlap, resulting in a total of 19 properties identified within the results.

EDR Corridor Report

The EDR Corridor Report identified state and federally listed sites within and near the project area at various distances up to a one-mile radius. Within the study area, the EDR Corridor Report identified one RCRA-Very Small Quantity Generator (VSQG), one solid waste facility, one leaking aboveground storage tank (LAST), and one leaking underground storage tank (LUST), five USTs, and four ASTs. There was one AST identified within one eighth of a mile of the project corridor. Within the one eighth to quarter mile area, the report identified a National Priority Listed (NPL) site (certificate of no further action), one site under federal engineering control and one under federal institutional control, another solid waste

facility, and three USTs. From a quarter mile to half mile distance from the project area, the report identified two solid waste facilities and two LUSTs. From a half mile to one mile from the project area, the report identified one state hazardous waste site within this search distance. According to the EDR Corridor Report, a state hazardous waste site is the state equivalent to CERCLIS.

Hazardous Materials Review and Results by Location

This section discusses potentially contaminated properties identified in the database review.

Plaistow

At the southern end of the project area, three sites were identified as hazardous waste generators but no record of contamination was reported for any of the sites.

Kingston

In the middle of the project area, there are multiple sites identified. One site, Galloway Trucking, is listed as a hazardous waste generator and is under the jurisdiction of three programs: aboveground storage tank program; non-hazardous non-sanitary holding tank program; and underground injection control program. Another site, ASAP Auto, was identified in the NH spills database and as a hazardous waste generator. The spill was associated with the historical use of the site as an auto salvage yard, but a certificate of no further action was designated for the site in 2009.

Multiple businesses have been located at 45 Route 125 and identified as hazardous waste generators, but no contamination has been reported at the site. Kingston Foreign Auto is listed as a hazardous waste generator and is registered under a groundwater monitoring permit (GWP-198712023-K002) for petroleum contaminated soil observed during a tank removal in 1999. The May 2003 groundwater monitoring report stated that petroleum concentrations appear to show a decreasing trend over time at the site. The ground water quality of the site continues to be monitored in 2020. At the northernmost end of the project area, one site was identified as an inactive hazardous waste generator and historical auto facility.

Table 2.8-2 provides a list of the sites that were identified along the 1.8-mile corridor that may require further research during Final Design and /or prior to the start of construction. The estimated location of these site is shown on Figure 8.

Table 2.8-2 Potentially Contaminated Sites Identified (2019-2020)

Location	Name	NHDES Master ID #	Reason for Current Listing
212 Plaistow Rd Plaistow, NH	Dicks Auto Body, Inc.	49070	Hazardous Waste Generator
214 Plaistow Rd Plaistow, NH	East Side Properties, Inc.	49050	Hazardous Waste Generator
218 Plaistow Rd Plaistow, NH	Express Mobile Brake, Inc.	49051	Hazardous Waste Generator (inactive)
21 Bent Grass Circle Kingston, NH	Village at Granite Fields	69430	Public Water System Registered Water User

			Drinking water treatment system wastewater
Granite St Kingston, NH	Road Side of Granite St	64606	Actual/potential discharge of hazardous materials
3 Granite Rd Kingston, NH	ASAP Auto	44303	Hazardous waste generator Oil spills/releases
7 Old County Rd Plaistow, NH	Roger's Softwash	70530	Non-domestic wastewater
1 Roadstone Dr Kingston, NH	D & M Sand & Gravel	44315	Hazardous Waste Generator (inactive)
21 NH 125 Kingston, NH	Roderick Wholesale Florist, Inc.	2570	Underground Storage Tank(s)
8 NH 125 Kingston, NH	Auto Body Techniques Little River Motel	44323 58102	Hazardous Waste Generator (inactive) Underground Storage Tank(s)-permanently closed 2003
12 NH 125 Kingston, NH	Galloway Trucking	49082	Hazardous Waste Generator Aboveground Storage Tank Non-Hazardous, Non-Sanitary Holding Tank Underground Injection Control
41 NH 125 Kingston, NH	Kingston Collision Center	44327	Hazardous Waste Generator
43 NH 125 Kingston, NH	Bump & Grind Auto Body	2551	Hazardous Waste Generator Underground Storage Tank(s)
44 NH 125 Kingston, NH	Kingston Foreign Auto	2557	Hazardous Waste Generator Aboveground Storage Tank(s) Underground Storage Tank(s) Leaking Underground Storage Tank
45 NH 125 Kingston, NH	Wicked Cas Precision Cycle Hometown Auto Peters Automotive	44330 44328 44325 44333	Hazardous Waste Generator Hazardous Waste Generator Hazardous Waste Generator Hazardous Waste Generator
65 NH 125 Kingston, NH	Country Curl	920701	Underground Injection Control
66 NH 125 Kingston, NH Unit 8	Engine Service	44336	Hazardous Waste Generator (inactive)
66 NH 125 Kingston, NH Unit 9	Harry Hulls Auto Service	44337	Hazardous Waste Generator (inactive)
261 NH 125 Kingston, NH	C L Magnusson	2552	Hazardous Waste Generator Underground Storage Tank Septage Lagoon Sludge Application

The following information is a summary of the readily available information for six sites listed above in Table 2.8-2. Not all of the sites listed by the NHDES OneStop and EDR Corridor Report have readily available information.

3 Granite Road, Kingston, NH - ASAP Auto - The NHDES staff had visited ASAP Auto on May 17, 2006, June 6, 2006 and August 15, 2006. During these visits NHDES observed areas contaminated by the spillage of oil. Based on these observations and the historical use of this site as an auto salvage yard, NHDES determined that a discharge of oil had occurred at the subject site. A site investigation was performed in 2008. After laboratory analysis of soil samples, it was determined that no further action was required for the site and a certificate was issued on January 30, 2009.

21 NH 125, Kingston, NH – Roderick The Florist - This site was listed in the UST program for two tanks, both installed in 1982. A 5,000-gallon diesel tank was removed in August 1995 and no evidence of contamination was observed at the time of removal. A 6,000-gallon #2 heating oil tank was removed in October 1998; however, no closure report was submitted.
12 NH 125, Kingston, NH – Galloway Trucking

Galloway Trucking is listed as a small quantity hazardous materials generator for Naphtha Petroleum since March 6, 1997 (generator ID NHD510106826). The site has a total of five aboveground storage tanks. Two 2,000-gallon and one 500-gallon diesel fuel tanks were installed in January 1999. One 500-gallon hydraulic oil tank was installed in 1991, and one 500-gallon motor oil tank was installed in 1992. Registration for a non-hazardous, non-sanitary holding tank was issued on March 27, 2003. The holding tank collects discharge from floor drains at the facility. A regulatory action compliance form was issued regarding an underground injection control within the property on March 10, 2003.

43 NH 125, Kingston, NH – Bump & Grind Auto Body - This site was listed in the underground storage tank program database. There was a 2,000-gallon #2 heating oil tank installed in 1982 and removed in 1989. There are no records of contamination observed during removal.

44 NH 125, Kingston, NH - Kingston Foreign Auto - Kingston Foreign Auto is listed as a hazardous waste generator for the production of waste oil, used antifreeze and Naphtha Petroleum (SQG-CESQG). There is an 800-gallon used oil aboveground storage tank located on site, installed in 1989. The site also had three 6,000-gallon gasoline underground storage tanks (USTs), installed in 1973 and removed in 1999. During removal of the first tank, a small release of up to 10 gallons of gasoline spilled from the pump lines, the soil was excavated and staged for removal. No other releases were observed during the removal of the other tanks.

The site is registered under a groundwater monitoring permit (GWP-198712023-K002). A site investigation was performed in 1993 and petroleum contaminants were observed in soil, groundwater, and surface water within the vicinity of the site. In 1988, a line leak was detected at the pump island and was later repaired, though the quantity of the leak was not identified. However, contamination was observed at a nearby property in 1987, suggesting that a release occurred previously. Sample data from April 30, 2003 showed trace detections of Tetrachloroethene (PCE) and ethyl-tert-butyl-ether (ETBE), a gasoline additive similar to methyl-tert-butyl-ether (MTBE). The May 2003 groundwater monitoring report stated that petroleum concentrations appear to show a decreasing trend over time at the site. The ground water

quality of the site continues to be monitored. During Final Design, consultation with NHDES will occur to update this information and determine to the location of any known plume and monitoring wells (Environmental Commitment 11).

261 NH 125 Kingston, NH - C.L. Magnusson - CL Magnusson is an inactive producer of Dichlorodiphenyltrichloroethane or more commonly known as DDT as of August 15, 2001. A 1,000-gallon underground diesel fuel tank, installed in June 1971, and 2,000-gallon gasoline tank, installed in June 1979, were removed on October 1, 1986. A file depicting the closure of a septage lagoon was submitted on July 9, 1997.

Based upon review of the regulatory status of the current listings noted, these sites are not anticipated to impact environmental conditions within the footprint of the Updated Proposed Action. During the Final Design phase of the project, additional research may be necessary to verify this information and verify the current status of sites prior to any site acquisitions, easements and/or construction.
The NPL site listed in the EDR Corridor Report is the Ottati and Gross/Great Lakes Container Corporation site that underwent a large-scale remediation effort and no longer poses an environmental threat (as stated in the 2005 EA, page 4-114). This site is located in Plaistow approximately 1,000 feet south of the southern terminus of the 1.8-mile project area.

Operational (Permanent) Impacts

The footprint of the Updated Proposed Action is smaller than that of the Proposed Action presented in the 2005 EA. The reduced footprint decreases the potential for encountering contaminated soil or groundwater that may be present near the project area relative to the EA footprint. Since project operations will generally be similar to those conducted presently (i.e., similar use as a highway right of way), it is unlikely that the effect these hazardous materials and solid wastes have on humans and the environment will vary greatly from current conditions.

Construction (Temporary) Impacts

Although not anticipated as part of the Updated Proposed Action, should the removal of contaminated soil and/or groundwater be required, this removal would likely have a positive effect on the project area. Contaminated materials would be handled appropriately and managed in accordance with local and state regulations. Further research may be required during Final Design to determine the extent of soil excavation and if groundwater dewatering will be required.

Status of 2005 EA and FONSI Environmental Commitments and Mitigation Measures

Environmental commitments set forth in the 2005 EA are still pertinent to the Updated Proposed Action. Based on the scope and nature of the work proposed, further coordination with NHDOT Contamination Program shall occur in regard to potentially contaminated sites, PFAS and Limited Reuse of Soils during Final Design. Should contaminated soils and /or groundwater be of concern, appropriate worker health and safety precautions and waste management procedures will be conducted in accordance with applicable federal and NHDES regulations (Environmental Commitment 3).

Since issuance of the 2005 EA, additional measures to manage Limited Reuse Soils (LRS) and Per- and Polyfluoroalkyl Substances (PFAS) have become standard NHDOT environmental commitments that would apply to the updated Proposed Action. Further details on these matters are provided below.

Limited Reuse Soils

LRS are soils that are likely (based on "generator knowledge") and/or demonstrated (through laboratory analyses) to contain contaminant concentrations in the range of the NHDOT-specific Acceptable Reuse Concentrations (ARCs).

Roadside LRS commonly encountered at NHDOT construction projects includes:

- Soils with elevated concentrations of several polynuclear aromatic hydrocarbons (PAHs) and a few common metals;
- Soils with petroleum residue (total petroleum hydrocarbons (TPH)) related to the normal operation of motor vehicles and asphalt pavement;
- Roadway reclaimed stabilized base materials (asphalt pavement surface being pulverized in place along with the underlying road base); and
- Millings.

The NHDOT has determined that roadside LRS may be encountered in all topsoil within the limits of the existing right-of-way, regardless of its depth. In instances where topsoil is not present, soils from the top of ground to a depth of six inches is considered to be LRS. Soils excavated from beyond and/or below the specified LRS limits that do not exhibit visual or olfactory evidence of potential contamination shall not require handling as impacted material.

The contractor will be advised that roadside LRS have been identified within the project limits. As such, a Soils Management Plan (SMP) applies to the Updated Proposed Action. The SMP will provide guidance for the identification, handling, storage, reuse, and disposal of LRS soils generated during construction activities.

The Updated Proposed Action will require the development of a Project Operations Plan (POP), which specifies the Contractor's means and methods for handling and managing LRS (Environmental Commitment 24). This will include the implementation of the BMPs described in the SMP. No excavation in known areas of LRS will take place until the POP has been approved by the NHDOT. In addition, following approval of the POP, the Contractor is required to notify the NHDOT's Bureau of Environment at least two weeks prior to beginning excavation in the area(s) of known LRS.

In general, the SMP requires that LRS be reused, with priority, within the footprint of the Updated Proposed Action, if feasible. Reuse restrictions require that LRS placement be in accordance with the BMP's described in the SMP and with applicable federal, state, and local regulations. If reuse within the project footprint with the foregoing restrictions is not possible, alternative disposal options will be identified in the SMP. LRS shall not be stored or disposed of on private land.

Per- and Polyfluoroalkyl Substances

PFAS are a large group of man-made chemicals that are prevalent in many commercial products, including stain- and water-repellent or nonstick products. They are used in industrial and manufacturing process, and certain types of fire-fighting foam. These chemicals do not break down in the environment and are persistent in the human body causing concerns about potential adverse health effects.

In 2016, the NHDES identified PFAS as emerging contaminants and have developed Ambient Groundwater Quality Standards (AGQS) for two PFAS compounds, perfluorooctanoic acid (PFOA) and

perfluorooctane sulfonate (PFOS). Groundwater that has the potential to have PFAS concentrations-above AGQSs man be subject to management through a Groundwater Management Plan (GMP).

PFAS sampling has been completed by NHDES at several locations off of NH 125. One location, assumed to be the former NPL site in Plaistow, known as Ottati & Gross/Great Lakes Container Corporation site has resulted in the finding that PFAS are present in excess of NHDES regulatory thresholds. The site is approximately 1,500 feet to the south of the Contract E southern terminus. Based on the distance to the construction footprint, further investigation on this matter may be required during Final Design and coordination with NHDOT Contamination Program shall occur (Environmental Commitment 9).

In the unlikely event that PFAS-impacted groundwater is determined to be present within the project footprint of the Updated Proposed Action, dewatering activities shall be addressed in accordance with applicable NHDES rules and/or Groundwater Management Plans.

2.9 Cultural Resources

2.9.1 Relevant Findings of the 2005 EA

Historic Architectural Resources

The historic architectural survey and consultation for the 2005 EA was initially completed during the years of 2002 to 2004 and included project area reconnaissance and intensive-level architectural history surveys of individual resources and districts within the Area of Potential Effect (APE). Within the original six-mile study area, seven sites were found as individually eligible for the National Register of Historic Places. Five of the sites were located in Plaistow and two were located in Kingston.

By applying the criteria of effect, the NHDHR and FWHA determined that the project would have an adverse effect on two properties (both are located outside of the current project limits of the Updated Proposed Action). These properties are located in Plaistow and included the following: Morey/Stegmaier House (PLI0034) and the Tozier House (PLI0038).

A Memorandum of Agreement (MOA) was executed in 2005, between FHWA, NHDHR and NHDOT that outlined stipulations to be implemented over the course of the undertaking to mitigate the adverse effect on historic properties and to conclude the Section 106 process.

Archaeological Resources

Background research was conducted as part of the Phase IA Survey and revealed that the setting of the entire six-mile project area may be sensitive for pre-contact Native American archaeological resources. This was based on its position within a complex mosaic of streams, ponds and wetlands in the interior reaches of the southeastern Merrimack watershed. The 2005 EA identified four sensitive sites located in Kingston (and located within the current project limits of the Updated Proposed Action). These sites include:

- Area 6 - Consisting of three sites: Little River 1 (27-RK-435); Little River 2 (27-RK-436); and Noyes-Stevens Farmstead (27-RK-434)
- Area 7 – Site along NH 125 just north of intersection with Roadstone Drive
- Area 8 –Happy Hollow Cemetery

- Area 9 -Little River 3 (27-RK-437)

After this initial determination of sensitivity, Area 7 and Area 9 were further evaluated during a Phase IB Survey (conducted by IAC). This Phase IB Survey resulted in the determination that no further survey of Area 7 or Area 9 was warranted. Area 6 (consisting of three sites) and Area 8 remained sensitive for the potential presence of archaeological resources.

2.9.2 Updated Impact Analysis

An updated Request for Project Review (RPR) form was completed and submitted to NHDHR to reflect the changes in the 1.8-mile project area relative to potential historic structures or resources since the original historic architectural and archaeological surveys that were conducted in 2002 and 2004 and the conclusion of the Section 106 process in 2005.

Historic Architectural Resources

A NHDHR file review was conducted on May 10, 2018 by Preservation Company (PC). The purpose of the file review was to identify any properties that may have been inventoried or determined eligible for listing on the National Register since the original historic architectural survey was completed. The file search revealed that no properties in the 1.8-mile project APE had been surveyed or added to the National Register since the 2002 project area survey.

A reconnaissance-level survey was completed by PC in April and May 2018 that identified 24 properties built before 1970 in the updated project APE. Preliminary dates of construction were acquired from town assessor data, when available, and historic maps as well as field observations were used to confirm the dates. Thirteen of the 24 properties were surveyed as part of the 2002 project, and eleven properties were now old enough for intensive-level to be warranted. Of the thirteen properties surveyed in 2002, none were found eligible for the National Register, though one (Happy Hollow Cemetery) required more information for a full determination to be completed by NHDHR.

Table 2.9-1 lists the properties surveyed and the findings of the Determination of Eligibility Committee conducted as part of evaluating the Updated Proposed Action.

Table 2.9-1 Properties Surveyed and Determination of Eligibility – Updated Proposed Action

Town	Property/Address	DHR #	Determination
Plaistow	93 Kingston Road	PLI1017	Not Eligible
Plaistow	195 Kingston Road	PLI1016	Not Eligible
Kingston	Happy Hollow Cemetery Route 125	KIN0019	Not Eligible
Kingston	Prevaneau House & Royal Woodcraft Furniture 51 & 49 Route 125	KIN0027 (update)	Not Eligible
Kingston	Service Station 5 Route 125	KIN0107	Not Eligible
Kingston	Dave's Garage 44 Route 125	KIN0110	Not Eligible
Kingston	Elden-Mathews Cottage 56 Route 125	KIN0110	Eligible
Kingston	58 Route 125	KIN0111	Not Eligible
Kingston	Culvert, Route 125 over Little River	KIN01122	Not Eligible

Based upon a review of the Updated Proposed Action, NHDHR requested further information on the proposed impacts to Parcel 67 (formerly Parcel 8, located in Kingston) adjacent to the Elden-Mathews Cottage, the single property deemed eligible for the National Register of Historic Places in this 1.8-mile project corridor. The additional information was presented to NHDHR in the form of an Effect Table. The Effect Table provided details on the site disturbance proposed on Parcel 67, owned by the NHDOT. Parcel 67 is one of three parcels known as the former Sullivan Property, purchased by NHDOT as part of the overall six-mile project for the purposes of water quality treatment, preservation and mitigation. An existing water quality treatment area is located on this property. Under the Updated Proposed Action, Parcel 67 will undergo some land disturbance and vegetation clearing to accommodate the construction of a second water quality treatment area, near the property boundary of the Elden-Mathews Cottage. Upon review of the information presented in the Effect Table, FHWA, in consultation with NHDHR and NHDOT, issued a determination of No Historic Property Affected (Exhibit 5).

Historic Stone Walls

On May 11, 2020, an inspection of the project area was conducted by NHDOT staff to determine the presence of historic stone walls that would qualify for reconstruction, if disturbance to the wall(s) occurs as part of the Updated Proposed Action. Three walls were identified in the project area that quality for reconstruction due to their historic characteristics. These walls are located in Kingston on the following parcels:

- Parcel 29 (formerly Parcel 288) – Massapaug property on Diamond Hill Boulevard
- Parcel 35 (formerly Parcel 286) – Kingston Cemetery, Happy Hollow Cemetery
- Parcel 66 (formerly Parcel 6) – Elden-Mathews Cottage property

Archaeological Resources

Expanded Phase II Surveys were conducted by Independent Archaeological Consulting (IAC) during the summer of 2020 on two of the three previously identified sensitive locations within Area 6: Noyes-Stevens Farmstead site (27-RK-434) and Little River 1 site (27-RK-435). Little River 2 (27-RK-436) was not investigated by IAC since the proposed design of the Updated Proposed Action would not impact this location. In addition to the two locations within Area 6, IAC was tasked with conducting a combined Phase IA Archaeological Sensitivity Assessment and Phase 1B Intensive Archaeological Investigation of Parcel 34 (formerly Parcel 287), located in Kingston, just north of Area 6. Parcel 34 was recently included in the Updated Proposed Action to potentially serve as a water quality treatment area. Parcel 34 had not been investigated previously under past studies.

The archaeological testing and evaluations by IAC resulted in the following recommendations:

- Noyes-Stevens Farmstead site – not eligible for the National Register of Historic Places, no further survey
- Little River 1 site - not eligible for the National Register of Historic Places, no further survey
- Parcel 34 – no Pre-Contact or Post Contact archaeological resources, no further survey

Upon review of the information presented by IAC, FHWA, in consultation with NHDHR and NHDOT, issued a determination of "No Effect" relative to archaeological resources.

Operational (Permanent) Impacts

No known archaeological or historic architectural resources would be impacted by the Updated Proposed Action.

Construction (Temporary) Impacts

No known archaeological or historic architectural resources would be temporarily impacted by the Updated Proposed Action, except one historic stone wall. The stone wall is located along Diamond Oaks Boulevard and will be reconstructed as per NHDOT wall policy (Environmental Commitment 14). In addition, all land disturbance within 25 feet of the boundary of the Happy Hollow Cemetery will be monitored by a qualified archaeologist (Environmental Commitment 23).

Status of 2005 EA and FONSI Environmental Commitments and Mitigation Measures

Only two stipulations of the 2004 MOA remain applicable to the Updated Proposed Action. These stipulations detailed below shall be incorporated into the Updated Proposed Action:

> Stipulation IV. Native American Burials - No known Native American burials exist within the project boundaries. If such human remains and grave-associated artifacts are discovered while carrying out these activities pursuant to the MOA, the FHWA and NHDOT will immediately notify the appropriate authorities, as prescribed by New Hampshire statues, and the NHSHPO to determine an appropriate course of action in accordance with RSA 277-C:8a-8g and the Advisory Council on Historic Preservations' (Council's) "Policy Statement Regarding Treatment of Human Remains and Grave Goods," adopted by the Council on September 27, 1988 at Gallup, New Mexico.

Stipulation V. Euro-American Cemetery - If excavations are required with 25 feet of the Happy Hollow Cemetery's boundary demarked by the existing stonewall location along the property's fronts in Kingston, a qualified archaeologist will monitor the work. If graves are encountered, then work will cease in this area until the treatment and recordation of the graves and their immediate setting are approved by the State Archaeologist.

2.10 Surface Water Resources

2.10.1 Relevant Findings of the 2005 EA

Five perennial streams or rivers crossings were identified during the previously studied six-mile project limits: Kelly Brook, Little River, outlet stream from Mill Pond, an unnamed tributary to Mill Pond Stream, and the Powwow River. Four ponds were also identified: Bayberry Pond, Mill Pond, Great Pond, and Country Pond. All of these surface waters have a legislative water quality classification of "B" meaning the goal is that they be suitable for swimming and fishing. None were used as a public water supply.

The only surface water identified in the 2005 EA located within the 1.8-mile project area for the Updated Proposed Action is the Little River. Bayberry Pond is located south of Hunt Road, but outside of the project limits. The 2005 EA called for proposed impacts to Little River at the two culvert locations: NH 125 crossing and Granite Road crossing. The impacts were due to the proposed extension of the culverts and included the following.

Little River crossing at NH 125

- 75 square feet of channel impact
- 149 square feet of bank impact (both sides)

Little River crossing at Granite Road

- 67 square feet of channel impact
- 134 square feet of bank impact (both sides)

The stream bank impacts were documented as loss of overhanging vegetation that provides cover for fish, shade for reducing water temperatures, nutrient input for benthic communities and a buffer to filter pollutants and sediments. As mitigation, the disturbed bank would be revegetated and the amount of any additional vegetation clearing would be minimized. In addition, standard BMPs for erosion and sedimentation control would be utilized to avoid any short-term runoff impacts on the streams during construction.

Water Quality

The impact of the anticipated increase in the application of road salt due to the additional travel lanes was evaluated. Based upon stream sampling conducted in 2004, to determine the background data regarding specific conductance levels and chloride concentrations within the Little River, it was concluded that a greater than four-fold increase of future chloride concentrations would have to occur for the Little River to approach or exceed the established chronic aquatic life criteria. It was concluded

that the increase in added road salt due to the added travel lanes would present a relatively low risk of future concentrations exceeding aquatic life criteria.

Other runoff contaminants that could potentially impact surface water would be treated in a chain of BMPs located throughout the project area and included detention/retention basins and grassed swales.

2.10.2 Updated Impact Analysis

As stated above the only previously studied surface water located within the limits of the Updated Proposed Action is the Little River. Similar to the 2005 EA, the Updated Proposed Action calls for impacts to Little River at its crossing of NH 125 in Kingston (but not the crossing of Granite Road). The impacts would be a result of extending the culvert at both ends to accommodate the widening of NH 125.

The anticipated impacts from extending the culvert carrying Little River under NH 125 are:

- 5 linear feet of permanent channel impact
- 5 linear feet of permanent bank impact (both sides)

Similar to the proposed impacts presented in the 2005 EA, the stream bank impacts would include a loss of overhanging vegetation. Restoration would be accomplished for temporary impacts and would include revegetation of the disturbed area. Based upon consultation with the natural resource agencies, mitigation for the permanent impacts to the stream would be required based upon the current NHDES Rules that require watercourse-related mitigations for impacts to stream channels and banks. The consultation on this matter resulted in the finding that the previous wetland permit mitigation package executed as part of the former six-mile project area would satisfy the proposed impacts to the Little River due to the Updated Proposed Action.

Water Quality

Section 303(d) of the Clean Water Act requires each state to submit a list of impaired waters to the USEPA every two years to identify surface waters that are impaired by pollutants, not expected to meet water quality standards within a reasonable time, and require the development of a Total Maximum Daily Load (TMDL) study. This list is prepared by NHDES as outlined in the *2018 Section 305(b) and 303(d) Consolidated Assessment and Listing Methodology*. According to the NHDES 2018 303(d) list (most recent available) the section of the Little River (NHRIV700061401-01) within the project area is not listed as an impaired water.

In accordance with the NHDES Alteration of Terrain (AOT) Administrative Rules Env-WQ 1500, activities that result in terrain alteration shall not cause or contribute to any violation of the surface water quality standards established in Env-Wq 1700. These rules apply to the Updated Proposed Action due to the anticipated area of land disturbance resulting from construction activities; however, as per a Permit Exemption executed by NHDES and NHDOT in 2011, NHDOT projects are not required to obtain an AOT Permit but must still comply with AOT regulations.

The Updated Proposed Action would increase the amount of pavement by 1.20 acres or 2.08 lane miles, therefore the amount of sediment and pollutants generated within the project area would increase from its current level. To mitigate this, water quality treatment areas will be employed to remove these sediments and pollutants before they reach the receiving waters.

Since the 2005 EA, new regulations have taken effect regarding the treatment of stormwater. The General Permits for Stormwater Discharges from Small Municipal Separate Storm Sewer System was reissued to be effective in 2021 and the Alteration of Terrain Permit was reissued. The MS4 permit effluent limitations will be applied to this activity. Seven stormwater collection and treatment facilities are being considered within the 1.8-mile project area that will provide stormwater treatment for to achieve the Part. 2.3.6 effluent limitations. AOT also requires the project address increases in the quantity and intensity of stormwater runoff. To mitigate these impacts, water quality treatment facilities will retain stormwater before being slowly released through an outlet control structure over a period of 24 to 40 hours, thus reducing the chances that high intensity runoff will create erosion issues. Preliminary evaluation of the layout of the drainage and treatment facilities appear to be more than adequate to achieve the required effluent limitations. These locations will be further evaluated and refined during the Final Design.

Operational (Permanent) Impacts

The Updated Proposed Action would result in a net increase of approximately 1.20 acres of new pavement associated with an added travel lane and shoulders. Refinement of the possible seven water quality treatment areas will occur during Final Design. The MS4 and AOT rules will be met to the extent practical. The increase in pavement is less than the pavement proposed in the 2005 EA.

It is anticipated that the potential surface waters impact with the stormwater generated from the Updated Proposed Action will be less than what was anticipated in the 2005 EA, especially with the water quality treatment area designs being more advanced over time. The number of roadway lane miles proposed are less than the lanes miles proposed in the 2005 EA, therefore, deicing or salt loading is anticipated to be less than previously evaluated.

Construction (Temporary) Impacts

Stormwater discharges from construction activities resulting in earth disturbance greater than one acre in size must obtain coverage under an EPA National Pollutant Discharge Elimination System (NPDES) Construction General Permit (CGP) and monitor in accordance the Alteration of Terrain (AOT). Coverage under the CGP requires submittal of a Notice of Intent (NOI) and preparation of a Storm Water Pollution Prevention Plan (SWPPP) prior to the start of construction (Environmental Commitment 8).

Status of 2005 EA and FONSI Environmental Commitments and Mitigation Measures

The water quality commitments from the 2005 EA remain valid. With respect to potential chloride loadings associated with deicing salt applications, NHDOT has implemented a Statewide Salt Management Plan that details the practices and efficient uses of road deicers. The number of roadway lane miles with Contract E will be less than that proposed in the 2005 EA, and thus, the previous conclusions and environmental commitments regarding deicing salt loadings remain valid.

2.11 Groundwater Resources

2.11.1 Relevant Findings of the 2005 EA

NH 125 crosses stratified drift aquifers in several areas along the project corridor. Based upon research conducted for the 2005 EA, approximately 47 percent of Plaistow and 57 percent of Kingston are underlain by stratified drift aquifers as compared to 14 percent of the entire state (Medalie and Moore

1995). Stratified drift aquifers are an important source of groundwater for commercial, industrial, domestic, and public water supplies. Potential yield from these aquifers is measured by transmissivity or the rate at which water can pass through the sand and gravel deposits.

The portion of the project area in Plaistow was found to be underlain by stratified drift with a relatively low transmissivity or potential yield (less than 1,000 square feet per day). In contrast, the corridor crosses aquifers with moderately high transmissivity (1,001 to 2,000 square feet per day) in areas within Kingston.

Since public water and sewer are not located along the section of NH 125 encompassing the project area, there are a number of wells and public water systems immediately adjacent to or a very short distance from the roadway. Public wells are classified as "community water systems" that have at least 15 service connections used by year-around residences or that regularly serve at least 25 year-round residents, such as condominium complexes and mobile home parks. Transient, non-community water systems serve hotels, restaurants, campgrounds and similar establishments. Non-transient, non-community water systems serve 25 people or more for over 6 months such as schools, hospitals, and businesses.

NHDES established Drinking Water Protection Areas (DWPAs) around all active community and non-transient/non-community public water systems to protect them from possible contamination. Transient, non-community systems are not protected. For surface water supplies, a drainage area is defined around the source, while for wells, a radius is defined forming a circular Wellhead Protection Area (WHPA). The radius is determined, in general, by the type, capacity, and depth of the well.

For the 2005 EA, guidelines for protecting groundwater resources when planning transportation improvement projects were set forth in *Recommendations for Implementing Groundwater Protection Measures When Siting or Improving Roadways*, (NHDES, November 1995). The report defines four levels of protection along with suggested water quality treatment. The levels of protection are dictated by the type of groundwater resource or well size, distance of the roadway from the well or source, whether the well is up or down gradient from the roadway, and whether there is an impermeable layer between the roadway and well.

Since there are no municipal water systems in the project area, private domestic wells are assumed to be located at the residences adjacent to NH 125. Well locations are incomplete because at the time of the 2005 EA, only wells installed since 1984 were registered with NHDES. Whether any private wells were to be impacted was planned to be further investigated during the right-of-way interview process with property owners (Environmental Commitment 8).

2.11.2 Updated Impact Analysis

Research conducted for the Updated Proposed Action resulted in the finding that the majority of the project area (from its southern limit north to just south of Debra Road) contains a stratified drift aquifer with a transmissivity of less than 2,000 feet square per day. As detailed in the 2005 EA, stratified drift aquifers are an important source of groundwater for commercial, industrial, domestic, and public water supplies. In this same general area of the aquifer, a Wellhead Protection Area (WPA) is present. The aquifer, WPA and the locations of known public water supplies and private wells (based upon GRANIT data) are depicted on Figure 9.

Similar to the conditions stated in the 2005 EA, private wells are associated with all residences adjacent to NH 125. However, the locations of the wells are unknown since not all have been registered with NHDES. Similar to the process presented in the 2005 EA, additional research will be conducted to determine the location of private wells near the project area during the Final design and right-of-way process.

Similar to the process presented in the 2005 EA, guidelines for protecting groundwater resources, *Recommendations for Implementing Groundwater Protection Measures When Siting or Improving Roadways,* remains in place and will be used to help guide decisions regarding water quality measures during Final Design. All groundwater resources in NH have at least Level 1 recommended protection which includes various types of water quality treatment measures, including and grass swales. The recommendations are considered goals and there is an acknowledgment that it may be impractical to implement them in all situations.

Operational (Permanent) Impacts

The Updated Proposed Action will result in less pavement than previously proposed in the 2005 EA. The increase in pavement area currently proposed is 1.2 acres. This increase is not anticipated to have any measurable effects on groundwater resources. Encroachment upon a WPA will occur within a portion of the project area. The recommendations and guidelines presented in NHDES *Recommendations for Implementing Groundwater Protection Measures When Siting or Improving Roadways* will be followed and implemented to the extent practical and incorporated into Final Design.

Construction (Temporary) Impacts

Construction related, or temporary, impacts are not anticipated to occur to groundwater resources as result of the Updated Proposed Action. The contractor will be required to prepare an implement a Stormwater Pollution Prevention Plan, which will include measures required for the protection of groundwater.

Status of 2005 EA and FONSI Environmental Commitments and Mitigation Measures

The conclusions and environmental commitments presented in the 2005 EA remain valid and no additional impact to groundwater resources is anticipated.

2.12 Floodplains and Floodways

2.12.1 Relevant Findings of the 2005 EA

Federal projects potentially affecting floodplains require an evaluation under the provisions of Executive Order 11988, Floodplain Management, May 24, 1977. The GRANIT database was used to identify 100-year floodplains in the vicinity of the six-mile project area in both Plaistow and Kingston. GRANIT utilizes FEMA Flood Insurance Rate Maps (FIRM) (Plaistow, April 15, 1981, and Kingston, April 15, 1992). A 100-year floodplain is defined as having a one percent chance of flooding in any particular year. The floodway is a regulatory limit established by FEMA in which any encroachment cannot result in any increase in surface water elevation. In most cases, the floodway approximates the actual channel of the watercourse.

The 2005 EA indicated that potential floodplain crossings or encroachments of concern within the six-mile project corridor include the Kelly Brook (and its floodway), Mill Pond Stream, and Bartlett Brook.

Other watercourses crossed by the project, such as the Little River, may show seasonal overbank flooding during intense rainfall or snowmelt, but do not have 100-year floodplains or floodways designated along them by FEMA.

The Proposed Action was estimated to impact approximately 2.1 acres of the 100-year floodplain in three areas: Kelly Brook, Mill Pond Stream, and Bartlett Brook (outside the current project limits). It was determined that the impact would not result in substantial (i.e., more than 1 foot) increase in the flood elevations of any of the streams crossed by the project and would not result in impacts to structures, nor pose a significant risk relative to property loss or hazard to life.

2.12.2 Updated Impact Analysis

The Updated Proposed Action will not impact floodplains or floodways of any waters. The 1.8-mile project corridor contains one waterway crossing, the Little River, which does not have a FEMA-mapped regulated floodplain or floodway in the project area. See Figure 10.

Operational (Permanent) Impacts

There will be no permanent impacts to floodplains or floodways as a result of this project.

Construction (Temporary) Impacts

There will be no construction impacts to floodplains or floodways as a result of this project.

Status of 2005 EA and FONSI Environmental Commitments and Mitigation Measures

Based upon the 2005 EA impacts to the existing floodplains and floodways were largely avoided and minimized by the 2005 Proposed Action at all river and stream crossings within the six-mile project area. Additional measures to minimize encroachment into either the 100-year floodplain or floodway, were implemented during final design. Compensatory mitigation for the loss of floodwater storage, including in the floodway, was provided in part by the creation of 3 acres of wetlands within the watershed of Little River in South Kingston.

The Updated Proposed Action does not impact floodplains and floodways, therefore, mitigation is not required. Although the Little River does not have a floodplain or floodway, efforts have been made during Preliminary Design and will continue during Final Design to minimize impacts to this waterway to the extent possible.

2.13 Wetland Resources

2.13.1 Relevant Findings of the 2005 EA

Wetland impacts anticipated from the Proposed Action to occur were the subject of a NHDES Wetlands Permit (#2004-00763). The total impact for the six-mile project was estimated at 7.43 acres. Compensatory mitigation for the wetland impact occurred as three main components and including the following actions:

- Acquisition of 14.7 acres of land comprising three parcels (8, 9, 9A), known as the Sullivan Properties in Kingston that were to be used for wetland creation, habitat restoration and preservation of a buffer around Bayberry Pond.
- Acquisition of a conservation easement adjacent to Bayberry Pond for a total of 30-40 acres of preserved buffer around Bayberry Pond.
- Acquisition of a conservation easement on the entire parcel identified Map 6/Lot 15 (totaling 43.4 acres) located in Plaistow.

These actions met the mitigation requirements as part of the NHDES permit for the six-mile project. These actions have been completed.

2.13.2 Updated Impact Analysis

An updated wetland delineation was conducted for certain areas of the project by McFarland Johnson during the summer of 2018 and the remaining areas were delineated by GM2 Associates during the fall of 2019 and the summer of 2020. The wetland delineations were completed in accordance with the 1987 *US Army Corps of Engineers Wetlands Delineation Manual* and the 2012 *Regional Supplement to the Corps Wetland Delineation Manual: Northcentral and Northeast Region*. References included *Field Indicators of Hydric Soils in the United States* (Version 7.0, 2010), the *National List of Plant Species that Occur in Wetlands*, and *Classification of Wetlands and Deepwater Habitats of the United States* (Federal Geographic Data Committee, 2013).

The wetland identification system used for the 2018-2020 wetland delineations efforts matched the marking system used for the 2001 wetland delineation, the delineation used for the NHDES Wetland Permit and presented in the 2005 EA. The delineation effort conducted during 2018-2020 resulted in the finding that few changes have occurred in the wetland/upland boundary location since the 2001 delineation (Figure 11). Vernal pools were not identified in either of the delineation efforts.

After comparing the reduced footprint of the Updated Proposed Action to the wetland locations it revealed a reduction in the wetland impact from approximately 1.95 acres as presented in the 2005 EA to 0.5 acres. In addition to the reduced footprint, avoidance and minimization efforts have been incorporated into the Preliminary Design of the Updated Proposed Action and further efforts will be made to reduce impacts during Final Design.

Wetland functional assessments were performed at locations that are representative of the anticipated impacts. Locations were chosen based on USACOE guidance in the Highway Methodology, the size of the impact relative to other impact areas, and the location of the impact within a wetland system relative to other wetland systems. The current functions and values of the Contract E wetlands include:

floodflow alteration, sediment/toxicant/pathogen retention, and nutrient removal/retention/transformation. Some of the wetlands also function principally as wildlife habitat, but to a lesser degree. Groundwater recharge/discharge, production export and shoreline/sediment stabilization are also found in some wetlands but are not generally principal functions of these wetlands. All other potential functions and values are provided minimally or are nonexistent.

Many of the impacts could be described as "edge impacts" along the edge of wetland systems. The edge impacts represent a small percentage of the total acreage within these systems and this incremental loss will not eliminate the functions and values performed by the remaining wetland area. A few smaller wetlands will lose functions and values due to the proposed impact. Direct and indirect impacts will be further defined during Final Design and during the NHDES permit review process. Neither Plaistow nor Kingston currently has designated prime wetlands under NH RSA 482-A:15; therefore, no prime wetlands will be impacted.

All appropriate permits from the NHDES and USACOE shall be obtained prior to the commencement of any work within jurisdictional wetland and surface waters (Environmental Commitment 1). An approved/updated Water Quality Certificate shall be obtained prior to construction (Environmental Commitment 2).

Operational (Permanent) Impacts

Permanent impacts to wetlands are estimated at approximately 0.5 acres (a reduction from the 1.95 acres of impact previously prosed from the Proposed Action). The mitigation required for this 0.5 acres of wetland impact has been conducted previously as part of the mitigation implemented for the Proposed Action based upon the 2004 NHDES Wetland Permit and mitigation package.

Construction (Temporary) Impacts

Temporary impacts to wetlands during construction are minimal. At this time, 286 SF (0.007 acres) of temporary wetland impact is anticipated; however, these temporary impacts will be restored and do not require mitigation. During Final Design, efforts will be made to reduce these temporary impacts, if practicable.

Status of 2005 EA and FONSI Environmental Commitments and Mitigation Measures

Since the issuance of NHDES Permit #2004-00763 and approval of the mitigation package, the NHDOT and the resource agencies have consulted on this 1.8-mile section of the entire six-mile project area studied and presented in the 2005 EA. An agreement was made between NHDOT and NHDES Wetlands Bureau on June 26, 2015 that if additional wetland impact (beyond the previously permitted 1.95 acres) the mitigation would occur in the form of a payment to the Aquatic Resource Mitigation (ARM) Fund.

Due to the smaller footprint, the wetland impact of the Updated Proposed Action has been substantially decreased from the previous 1.95 acres to 0.50 acres. Based upon consultation with the resource agencies and specifically, the NHDES Wetlands Bureau, it was determined that the previous mitigation package for the six-mile project area serves to satisfy the mitigation requirements for wetland impacts and the stream impacts to the Little River due to the proposed culvert extension. Stream impacts were not included in the 2004 mitigation package since it was prior to the NHDES Rules that require watercourse-related mitigation for impacts to stream channels and banks.

2.14 Wildlife and Fisheries Resources

2.14.1 Relevant Findings of the 2005 EA

The research conducted for the 2005 EA resulted in the finding that land cover for this 1.8-mile section of NH 125 consists primarily of a mixture of commercial and residential development, fragmented blocks of forest, shrublands, disturbed areas, and wetland areas. Various types of wetlands including forested and scrub-shrub swamps, emergent marshes, and shallow ponds occur immediately adjacent to the highway or a short distance from it. Upland habitat types inventoried included hardwood forest, softwood forest, mixed forest, and shrubland.

The riparian area along the Little River was identified as an important habitat corridor since it provides a travel corridor for wildlife between various habitats to meet their life-history requirements. NHFG considered the Little River an important cold-water fishery.

Agency comments on the habitat and impacts to wildlife and fisheries resources were received at the monthly natural resource agency meetings and during a field review of the project corridor in August 2003. Agency comments were addressed in the 2005 EA.

The project was found to have minimal impact on wildlife habitat since the project was primarily within the State's existing right-of-way. Existing habitats, because of their proximity to the highway and disturbance, are of relatively low value.

However, the 2005 EA called for mitigation of impacts to habitat (included the entire extent of habitat impacts proposed within the six-mile corridor). The 2005 mitigation proposal included the preservation of 86 to 96 acres of mixed habitat types within Plaistow and Kingston. In addition, 1.23 acres of wetland creation and restoration of another 1.5 acres of upland habitat was accomplished on Parcels 67 and 68 (formerly Parcels 8, 9 and 9A) in Kingston ("Sullivan" properties) with the goal of providing a replacement for the wildlife habitat values lost due to the project and the restriction of future development by use of a conservation easement.

2.14.2 Updated Impact Analysis

The 2015 NH Wildlife Action Plan (WAP) provides the framework for conserving "Species of Greatest Conservation Need" and their habitats. The WAP includes a habitat-based statewide map that identifies "Highest Ranked Wildlife Habitat," which shows where habitat exists in the best ecological condition. As part of the WAP, the NHFG ranked habitat tiers in NH, which are 1) Highest Ranked Habitat in NH, 2) Highest Ranked Habitat in the Biological Region, and 3) Supporting Landscape. These habitat tiers are provided on the GRANIT GIS database. There are few wildlife habitat areas within or near the project corridor that have been identified by the WAP. See Figure 12 for the location of the WAP habitat areas.

According to the WAP, there are no habitat areas within the 1.8-mile project area ranked as the Highest Ranked Habitat in NH. Bayberry Pond, over 500 feet away from the edge of pavement of NH 125 is surrounded by a band of Highest Ranked Habitat in the Biological Region. Adjacent to and near the project, there are areas mapped as Supporting Landscape. These include the forested area located between NH 125 and Granite Road (northbound), and small area on the opposite side of NH 125 (southbound), and the area surrounding the Little River on both the southbound and northbound sides of its crossing under NH 125. A few of the proposed water quality treatment areas will disturb habitat

mapped as Supporting Landscape, however, some vegetation will return to these areas and some habitat will be provided long-term.

The Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) requires the federal government and/or federally funded projects to identify Essential Fish Habitat (EFH) and make conservation recommendations to agencies whose actions could damage it. EFH is defined as "those waters and substrates necessary to fish for spawning, breeding, feeding, or growth to maturity." "Waters" include aquatic areas and their associated physical, chemical, and biological properties. The National Oceanic Atmospheric Administration (NOAA) provides an online EFH Mapper to determine the presence of EFH. The Little River, the sole waterway crossing in the project corridor, was not identified as EFH by NOAA. However, as stated above, the Little River is considered by NHFG to be an important cold water fishery.

As stated above, the Little River is considered by NHFG to be an important cold-water fishery. The culvert that carries the river under NH 125 is a reinforced concrete pipe. The culvert currently allow for unobstructed upstream and downstream fish passage and the proposed work (culvert extension) will maintain this connectivity.

According to the USFWS, there are no critical habitats known to be present in the project corridor (Exhibit 6). State and federally listed species may be in the project area based upon a recent NHNHB records search. Refer to Section 2.15 for details on these matters. Exemplary natural communities are protected under the NH Native Plant Protection Act (RSA 217-A) and are designated by the NHNHB as high-quality examples of natural community types. The NHNHB has not identified any exemplary natural communities within or near the project the project.

The Bald and Golden Eagle Protection Act prohibits the "take" of bald eagles and golden eagles, including their parts, nests, and eggs. The Act also prohibits impacts from human activities that result in nest abandonment or the interruption of normal breeding, feeding, or sheltering habits. Neither of these species was reported by the NHB, NHFG, or the USFWS as a potential concern in the project corridor. No evidence of eagle nests has been observed in or near the project area. The project as proposed is not expected to result in any impact to these species.

Based upon SB200 (RSA 228:26-c Wildlife Corridors and Habitat Strongholds), the Little River Corridor, which crosses the project area, shall be considered in Final Design as a wildlife corridor and important habitat. Additional agency coordination will continue during the permitting phase of the project and additional protection measures may be incorporated during Final Design (Environmental Commitment 10).

Given the project's location within a developed area of a highway corridor and its minimal impacts to the surrounding landscape, few impacts to wildlife habitat are expected.

Invasive Species

An invasive plant is a non-native plant that is able to persist and proliferate outside of cultivation, resulting in ecological and/or economic harm. Under the statutory authority of NH RSA 430:55 and NH RSA 487:16-a, the NH Department of Agriculture, Markets & Food and NHDES prohibit the spread of invasive plants listed on the NH Prohibited Species List. Based upon a corridor inspection conducted during the summer of 2018, the project area was found to contain invasive plant species (Figure 13)

which are invasive plants listed on the NH List of Prohibited Invasive Species (AGR PART 3802.01). Invasive plant populations will be shown on the construction plans. If invasive plants cannot be avoided during construction, all appropriate best management practices to avoid spreading will be implemented (Environmental Commitment 13).

NHDOT Standard Specifications designate invasive plants as Type I or Type II based on the complexity of control measures that are required to prevent the spread of the plants during construction. In general, Type II plants require a greater level of control due to their ability to spread from stem or root fragments. Both purple loosestrife and Japanese knotweed are designated Type II species. Invasive plants identified within the project corridor include the following: purple loosestrife; Japanese knotweed; common read, autumn olive; common buckthorn; glossy buckthorn; Japanese Barberry; Morrow's honeysuckle; multiflora rose; and oriental bittersweet.

Operational (Permanent) Impacts

Substantial changes to wildlife habitat identified in the 2005 EA are not anticipated to occur for the Updated Proposed Action although three areas of WAP mapped Supporting Habitat will be impacted for the placement of water quality treatment areas. Some vegetation is expected to return and remain persistent. Additionally, the footprint of the 1.8-mile project area will be smaller in size than the previously proposed footprint and a reduction in the size of the land area and habitat disturbance will result. Therefore, the evaluation regarding permanent impacts provided in the 2005 EA are accurate and applicable to the current project.

Construction (Temporary) Impacts

As mentioned above, the footprint will be smaller in size than the previously proposed footprint, therefore the evaluation regarding permanent impacts provided are accurate and applicable to the current project.

Status of 2005 EA and FONSI Environmental Commitments and Mitigation Measures

The project will have a minimal impact on wildlife habitat with the permanent loss of approximately2.8 acres identified as WAP Supporting Landscapes. Some of these Supporting Landscapes are in close proximity to the highway and considered relatively low value and some areas are located over 300 feet from the highway and are assumed to have a higher value.

The 2005 EA called for mitigation for the impact to wildlife habitat (for impacts within the original six-mile project area) and included preservation of 86 to 96 acres of mixed habitat types in both Plaistow and Kingston. In addition, 1.23 acres of wetland creation and restoration of another 1.5 acres of upland habitat was to be accomplished on Parcels 67 and 68 (formerly Parcels 8, 9 and 9A), known as the Sullivan properties, in Kingston.

One existing culvert along the Little River will require extension to accommodate the widened highway and shoulder improvements. The resultant loss of 5 linear feet of streambed in the Little River is not expected to adversely affect fish populations or reduce the availability of any critical habitat. Bank impacts total 5 linear feet. There will be no direct impact to ponds or lakes in the project corridor.

Mitigation for the stream impacts to the Little River has been reviewed by the resource agencies since it was not included in the 2004 mitigation package. The NHDES Wetlands Bureau determined that these

impacts would be covered by the 2004 mitigation package; therefore, no additional mitigation is required. The disturbed banks will be revegetated as quickly as practical and the amount of any additional clearing will be minimized. In addition, standard best management practices for erosion and sedimentation control will be utilized to avoid any short-term runoff impacts on the streams during construction.

2.15 Threatened and Endangered Species (Federal and State)

2.15.1 Relevant Findings of the 2005 EA

In 2005 the USFWS reported that no federally-listed or proposed, threatened or endangered species under their jurisdiction are known to occur in the project area. They concluded that there would be no impacts to Federally-listed species from the Proposed Action. Preparation of a Biological Assessment or further consultation with that agency under Section 7 of the Endangered Species Act was not required.

A search by the NHNHB of their database found records of one rare species, the eastern pondmussel (*Ligumia nasuta*) and three exemplary natural communities within the six-mile project area: Atlantic white cedar basin swamp, Southern New England (SNE) level bog, and streamside fen ecosystem. Atlantic white cedar swamps were identified near the northern terminus of the project along the east side of the highway and as a component of the large wetland complex ("Tucker Swamp") lying along the Powwow River. The streamside fen ecosystem also lies along that same river. The SNE level bog occurs around Cedar Swamp Pond, just south of this same area. These locations are not within the project limits of the 1.8-mile project currently under study.

It was concluded that no direct impacts to any of the exemplary natural communities would occur since they either lie just beyond the proposed widening of the Proposed Action or were far enough from the highway so as to avoid being impacted. At the resource agency meeting on August 21, 2002, the USEPA representative asked that the white cedar swamps be protected from any water quality changes associated with highway runoff. It was found that none of the proposed highway improvements would entail changes in highway drainage to these sensitive areas.

Coordination with the Nongame Division of the NHFG indicated that the habitat of the eastern pondmussel was located in Great Pond. Since neither this water body nor any other pond would be affected by the project, it was concluded that the eastern pondmussel would not be impacted.

Since there were previously no impacts to any endangered or threatened species or exemplary natural community, no mitigation was proposed.

2.15.2 Updated Impact Analysis

Coordination with the USFWS, NHFG, and NHB was conducted in 2019 and 2020 to determine if any changes in listing status occurred and to obtain an updated list of what species or natural communities are located within or near the 1.8-mile project area. Coordination with USFWS, NHFG and NHNHB is enclosed as Exhibits 9 and 10.

The USFWS consultation resulted in the finding that no critical habitats are present in the project area; however, the project area is within the range of the Federally threatened (state endangered) northern long-eared bat, which was listed in 2015. The NHNHB consultation resulted in the finding that the

project area had a record for the presence of a Blanding's turtle (state endangered) near the area known as Misery Hill (Exhibit 6).

A summary of the species identified as potentially present and protection measures follows:

Northern Long-eared Bat

According to the USFWS Official Species List, the project area is located within the documented range of the Federally threatened (state endangered) northern long-eared bat. The NHNHB and NHFG did not report any known winter hibernacula or maternity roost trees in the vicinity of the project. According to the USFWS, suitable summer habitat for northern long-eared bat consists of a variety of forested habitats. This species generally prefers closed canopy forest with an open understory. Potential roost trees include live trees or snags, at least 3 inches in diameter, with exfoliating bark, cracks, crevices, or cavities. Potential roosting habitat does exist in the project area.

The project will involve tree clearing within potential suitable summer habitat for northern long-eared bat. The proposed project is anticipated to require approximately 9.0 acres of tree clearing for construction of the new roadway and water quality treatment areas. Approximately 0.75 acres of tree clearing will be located at a distance greater than 300 feet from the existing roadway surface for the water quality treatment areas. Therefore, the proposed project constitutes an action outside the scope of the USFWS Range-wide Programmatic Consultation for Indian Bat and Northern Long-eared Bat and cannot be evaluated under this agreement.

The project and associated effects on northern long-eared bat was reviewed under the 4(d) Rule and the USFWS verification letter is attached (Exhibit 7). There are currently pending lawsuits against the USFWS challenging the listing of northern long-eared bat as threatened instead of endangered and challenging the 4(d) Rule. In January 2020, the US District Court for the District of Columbia overturned the USFWS decision to list the northern long-eared bat as threatened rather than endangered. The USFWS is currently reevaluating the listing status based on the best available data. During this review process, the threatened status remains in effect, as does the 4(d) Rule. Should the 4(d) Rule be rescinded or the listing status changed to endangered prior to completion of the Updated Proposed Action, consultation with USFWS will be re-opened. An acoustic survey will be completed Summer 2021 to assess the potential presence of northern long-eared bat. The results of this survey will inform the need for and level of future consultation with USFWS (Environmental Commitment 4).

The NHDOT Northern Long-Eared Bat Flyer will be shared with all operators, employees, and contractors working on the project and operators, employees, and contractors will be made aware of all applicable environmental commitments regarding protections for bats (Environmental Commitment 21). Additionally, construction personnel will be required to report all sightings of dead or sick bats to the NHDOT Bureau of Environment (Environmental Commitment 22).

Blanding's Turtle

According to the NHB, Blanding's turtle was reported within the project area, at the location known as Misery Hill. The Blanding's turtle is listed as state endangered and is generally found in wetland habitats with permanent shallow water and emergent vegetation such as marshes, swamps, bogs, and ponds and is known to use vernal pools extensively in spring and while traveling through the landscape. In addition, the Blanding's turtle may use slow rivers and streams as mechanisms for dispersal between wetlands. Its extensive use of terrestrial habitats for nesting and travel among wetlands has also been documented.

According to NHFG, if a Blanding's turtle has been documented in an area, there usually is a high probability that spotted turtle is also present. Female Blanding's and spotted turtles will lay eggs in exposed mineral soils in sunny locations including road shoulders during turtle nesting season from the end of May until the beginning of July, peaking in mid-June. Most newly hatched turtles will emerge from their nests from August through October.

As per NHFG, the following statement will be added to the Final Design plans (Environmental Commitment 15).

> ***IF ADULT SPOTTED OR BLANDING'S TURTLES ARE FOUND LAYING EGGS OR HATCHLNGS ARE FOUND IN A WORK AREA, PLEASE CONTACT MELISSA DOPERALSKI (603-479-1129 cell) or JOSH MEGYESY (cell 978-578-0802) FOR FURTHER INSTRUCTIONS.***

Monarch Butterfly

The monarch butterfly has become a candidate for listing under the Endangered Species Act (ESA). The USFWS will review the monarch's status each year until resources are available to begin developing a proposal to list the monarch as threatened or endangered under the ESA. The candidate status of the monarch does not provide protection under the Endangered Species Act, and no further coordination with the USFWS is required at this time. Monarch habitat includes non-forested, non-shrubby areas where there is potential for nectar species (flowering plants) and/or milkweed plants, including, but not limited to, regularly or semi-regularly mowed areas within the ROW and where a clear zone is maintained.

Rare Plants

The NHB and USFWS did not report any state or federally listed plant species located within the project area.

Operational (Permanent) Impacts

The footprint of the Updated Proposed Action is smaller than previously proposed. However, the 9.0 acres of tree clearing may reduce the habitat for northern long-eared bat. As detailed above, additional and ongoing consultation with USFWS will occur. Other species will be protected by following best management practices and procedures set forth by the USFWS, NHFG and the environmental commitments. Permanent impacts to federally or state listed species are not anticipated.

Construction (Temporary) Impacts

At the on-set of construction, sequencing will be reviewed to determine if tree clearing can occur during the non-active season for bats to minimize impacts (Environmental Commitment 25).

Status of 2005 EA and FONSI Environmental Commitments and Mitigation Measures

Similar to the findings in the 2005 EA, there will be no direct impacts to any exemplary communities. On-going consultation will occur to determine if impacts will occur to the northern long-eared bat. According to consultation with NHFG and NHB, impacts to the Blanding's turtle or its habitat are not anticipated. Mitigation is not proposed.

The listing status of the northern long-eared bat and applicability and status of the 4(d) Rule will be monitored throughout the entire duration of the proposed project. Should any regulatory changes occur prior to completion of the project, consultation with USFWS shall be re-opened to ensure compliance with current regulations (Environmental Commitment 4).

Coordination shall continue with NHFG on measures to address the potential presence of the Blanding's Turtle and other species within the project area and the fishery habitat found within the Little River as well as wildlife connectivity and safety (Environmental Commitment 5).

2.16 Visual Resources

2.16.1 Relevant Findings of the 2005 EA

As stated in the 2005 EA, the State of NH takes pride in the visual beauty of its communities, with its highways designed whenever practicable to fit within the character of the surrounding landscape. As such, the potential impacts of proposed improvements on visual resources are given careful consideration.

This section of NH 125 was described as a mix of intensive commercial development with limited areas still reflecting its earlier rural and residential character. The corridor was noted as primarily commercial in Plaistow, with mixed commercial and residential development as one proceeded northward into Kingston. Patches of wooded areas and undeveloped land became more common in the northern section of the corridor. In contrast, it was noted that land use just off the corridor (i.e., properties without frontage on NH 125) were largely rural residential uses.

2.16.2 Updated Proposed Action

Although the project footprint has been reduced as compared to the 2005 Proposed Action, the size and scale of the existing NH 125 would increase from the expansion of the pavement area, removal of vegetation, and the expansion of the current cut and fill slope lines that are generally maintained grass areas adjacent to the existing pavement limits. Some areas of vegetation removal would occur in existing vegetated buffers between the highway and the development areas including business and residences.

The reduction of vegetation and expansion of the cut and fill slope lines may create an adverse visual impact for some businesses and residences that rely on the vegetated buffers that serve to screen the view to NH 125. Similarly, portions of the proposed vegetation removal in forested areas may lessen the visual appeal of the more rural sections for the traveling public.

In general, the vegetation removal would occur in small narrow slivers adjacent to NH 125 in numerous locations but is not anticipated to visually impact the majority of the businesses and residences. The water quality treatment areas would be designed to minimize visual impacts and would be long-term features with some vegetation returning and remaining persistent.

Summary of Impacts/Mitigation

Although the improved NH 125 will be wider than at present, the overall character of the project area will essentially remain the same as it is today. Widening of NH 125 will require some tree and vegetation removal and will result in a more open highway effect.

Efforts to mitigate the loss or reduction of the visual quality would occur during the Final Design phase of the project. Mitigation measures may include the following:

- Planting natural vegetation within the disturbed area along NH 125 and providing plantings to serve as screening for residences and businesses.
- Design considerations for drainage structures and other hardscape features to enhance their visual appearance.

The visual impact from the vegetation removal to construct the water quality treatment areas will be minimized due to their location which is generally set back off the highway and out of the view of the travelling public. As stated above, the features would be long-term with some vegetation returning and remaining persistent.

2.17 Construction Impacts

2.17.1 Relevant Findings of the 2005 EA

Impacts caused by construction activities will be short-term. Construction activities may result in temporary adverse impacts, with the two primary pollutant sources being construction equipment and exposed soils in disturbed areas.

Air pollutants emitted from diesel and gasoline powered construction equipment will include oxides of nitrogen, carbon monoxide, hydrocarbons, and particulate matter. Emissions from construction equipment may result in elevated ambient concentrations within the immediate vicinity of construction operations for short periods of time, but are not expected to have a substantial impact.

Particulate matter (dust) will be emitted as a result of grubbing, grading, excavating, hauling, and blasting operations. Dust emitted during most construction activities will be controlled by wetting unpaved areas in the construction zone, covering loads on all open trucks, and seeding all unvegetated areas as soon as practicable.

Activities associated with construction will likely require blasting of bedrock material in some areas and extensive grading in others (primarily for service roads and roadway realignment at selected intersections). The grading will include the stripping of existing vegetation, followed by excavation and filling. This construction will result in a nearly complete reworking and/or removal of surficial and subsoils along the sides of NH 125. Exposure of previously vegetated soils could lead to erosion if not properly controlled.

To minimize potential sedimentation impacts associated with construction, an erosion and sedimentation control plan, including BMPs, will be developed and implemented. Construction schedules will require that areas stripped of vegetation be limited in size and either surfaced or vegetated as quickly as possible after initial exposure. During the construction period, temporary

erosion dams will be installed in appropriate locations to control runoff. With proper diversions of flow, installation of silt retention basins, and construction carefully scheduled to limit soil exposure, erosion during construction should be minimized. Best management practices for fertilizer application during construction will also be followed. In addition, mechanisms to avoid and control chemical leaks and spills from construction equipment will be instituted. NHDOT will ensure that all of these measures are properly installed and maintained throughout construction to guarantee their maximum functionality and effectiveness. Additional details can be found in NHDOT's Standard Specifications for Road and Bridge Construction, Section 699, Temporary Project Water Pollution Control (Soil Erosion).

Human presence and associated construction noise at new location areas may repel some species of wildlife from the edge of the right-of-way. Animals tend to habituate to constant noise (Busnel 1978), but loud, sudden sounds will be commonplace during construction. The loud noises associated with construction also could mask territorial vocalizations of bird species near the construction, interfering at least temporarily with breeding. Amphibians, which breed more commonly at dusk or night, are less likely to be indirectly affected by the noise.

Construction activities will result in temporary noise impacts to sensitive receptors at various locations along the project's length. Noise levels in the vicinity of construction activities will vary widely depending on the type and number of pieces of construction equipment active at any one time.

It is expected that noise levels exceeding 67 decibels could occur up to 500 feet away from construction activities. Construction noise will, in some areas, be occurring near residences presently experiencing lower noise levels. In general construction will be accomplished during daylight hours, although night-time construction should be expected given the traffic volumes during daylight hours and the need to maintain traffic at these times.

Construction will create increased truck traffic on secondary roads. Access to NH 125 will be maintained although unavoidable delays will occur. Temporary delays will be experienced while construction occurs along the highway, traffic is shifted temporarily from one side to the other, equipment is moved around, and materials are delivered to work sites. ITS technologies (e.g., sign boards) will be deployed to more efficiently manage traffic during construction. A detailed Traffic Control Plan will be instituted to reduce these traffic-related, short-term impacts and minimize construction zone delays. The plan will include the requirement to maintain 2 lanes of traffic for normal construction activities and during high volume traffic periods. Businesses and their customers may experience some inconvenience due primarily to construction activities along their frontage. Construction activities will be coordinated with property owners to assure that reasonable access to properties is maintained. Temporary signing and other issues related to temporary relocation of access points necessitated by construction activities, will be appropriately addressed on an individual basis.

Some short-term visual impacts will also occur during construction as land clearing and earth-moving occurs. Additionally, some views will also be disrupted by the presence of temporary construction or access roads, marshalling yards, and stockpile areas that may be needed.

2.17.2 Updated Impact Analysis

The construction impacts identified in the 2005 EA (summarized above) remain consistent with the anticipated construction impacts resulting from the Updated Proposed Action. Construction of this project will cause temporary inconvenience to the public and temporary impacts to environmental

resources. The following measures will be implemented to minimize or avoid impacts during construction:

- Access to all homes and businesses will be maintained throughout construction (Environmental Commitment 20).

- Appropriate Best Management Practices, as outlined in NHDOT's "*Best Management Practices for the Control of Invasive and Noxious Plant Species*", will be utilized to avoid the spread of invasive plants within or outside of the project limits. The contractor shall prepare an Invasive Species Control and Management Plan, for the Department's approval, to summarize all appropriate BMPs to be implemented during construction.

- Standard pollution prevention measures will be employed to assure all negative impacts are avoided and/or minimized to the maximum extent practicable (Environmental Commitment 18).

- Construction of this project is anticipated to cause temporary increases in noise and dust levels within the project area. Standard measures, as outlined in the *New Hampshire Stormwater Manual Vol. 3 – Erosion Control and Sediment Controls During Construction (December 2008),* will be employed to ensure such increases are minimized to the extent practicable and limited to the construction period (Environmental Commitment 17).

- The Contractor will be required to prepare a Storm Water Pollution Prevention Plan (SWPPP) under the NPDES Construction General Permit. There shall be provisions in the contract requiring the Contractor to prepare the SWPPP and NOI (Environmental Commitment 12).

- Any spillage of oil or oil-based products during construction shall be promptly reported to regulatory agencies as appropriate (Environmental Commitment 19).

- Reports to Spotted or Blanding's Turtles laying eggs or hatchling must be reported (Environmental Commitment 15).

- Stringent Best Management Practices shall be utilized to prevent adverse impact to surface and groundwater water during construction (Environmental Commitment 16).

Based upon Preliminary Design, construction sequencing is anticipated to consist of the following phases, however, further refining will be conducted during final design and contractor work plan:

Phase 1- Widen the existing roadway to the east and begin constructing the water quality treatment areas.

Phase 2 – Shift traffic to a temporary layout on the widening while the west side of the proposed roadway, along with any retaining walls and culverts, is constructed. Continue constructing water quality treatment area.

Phase 3 – Shift traffic to the proposed roadway constructed in phase 2. This will allow the removal of the temporary widening, as well as construction of the proposed roadway and culverts, along the east side of the roadway. Continue construction of water quality treatment areas.

Phase 4 - The side roads will be constructed under one-way alternating traffic and minor closures. Complete construction of water quality treatment areas.

2.18 Environmental Commitments

The following environmental commitments have been made to ensure that environmental impacts are avoided or minimized and that the project remains in compliance with applicable regulations as the project progresses through Final Design and Construction. The NHDOT Bureau responsible for ensuring successful implementation of each environmental commitment is shown in parentheses.

2.18.1 Commitments to be carried out during Final Design

1) All appropriate permits from the NHDES and USACOE shall be obtained prior to the commencement of any work within jurisdictional wetland and surface waters. (Environment/Design)

2) An approved/updated Water Quality Certificate shall be obtained prior to construction. (Environment/Design)

3) Coordination with NHDOT Contamination Program shall occur in regard to potentially contaminated sites, PFAS and Limited Reuse of Soil. further coordination with NHDOT Contamination Program shall occur in regard to potentially contaminated sites, PFAS and Limited Reuse of Soils during Final Design. Should contaminated soils and /or groundwater be of concern, appropriate worker health and safety precautions and waste management procedures will be conducted in accordance with applicable federal and NHDES regulations. (Environment/Design)

4) The listing status of the northern long-eared bat and applicability and status of the 4(d) Rule will be monitored throughout the entire duration of the proposed project. Should any regulatory changes occur prior to completion of the project consultation with USFWS shall be re-opened to ensure compliance with current regulations. An acoustic survey will be completed Summer 2021 to assess the potential presence of northern long-eared bat. The results of this survey will inform the need for and level of future consultation with USFWS. (Environment)

5) Coordination shall continue with NHFG on measures to address the potential presence of the Blanding's Turtle and other species within the project area and the fishery habitat found within the Little River as well as wildlife connectivity and safety. (Environment/Design)

6) Coordination on proposed utility impacts with appropriate utility providers shall occur during Final Design of the project. (Design/Right-of-Way)

7) Property acquisitions and easements shall be completed by Bureau of Right-of-Way. (Design/Right-of-Way)

8) Since there are no municipal water systems in the project area, private domestic wells are assumed to be located at the residences adjacent to NH 125. Well locations are incomplete

because at the time of the 2005 EA, only wells installed since 1984 were registered with NHDES. Whether any private wells are to be impacted will be further investigated during the right-of-way interview process with property owners. (Environment/Design)

9) PFAS sampling has been completed by NHDES at several locations off of NH 125. One location, assumed to be the former NPL site in Plaistow, known as Ottati & Gross/Great Lakes Container Corporation site has resulted in the finding that PFAS are present in excess of NHDES regulatory thresholds. The site is approximately 1,500 feet to the south of the Contract E southern terminus. Based on the distance to the construction footprint, further investigation on this matter may be required during Final Design. Further consultation with NHDOT Contamination Program and NHDES will be necessary to address this matter. (Environment/Design)

10) The Little River Corridor, which crosses the project area, shall be considered in Final Design as a wildlife corridor and important habitat. Additional agency coordination will continue during the permitting phase of the project and additional protection measures may be incorporated during Final Design. (Environment/Design)

11) During Final Design, consultation with NHDES shall occur regarding Kingston Foreign Auto, (located at 44 NH 125, Kingston) to update the information on groundwater contamination and any known plume as well as the location of any monitoring wells. (Environment)

2.18.2 Commitments to be carried out prior to earth disturbance

12) This project will require a Notice of Intent and Storm Water Pollution Prevention Plan (SWPPP) under the NPDES Construction General Permit. There shall be provisions in the contract requiring the Contractor to prepare the SWPPP and NOI. (Environment/Design)

13) The project area contains plants that are on the NH List of Prohibited Invasive Species (AGR PART 3802.01). Locations of these plants shall be shown on construction plans. The Contractor shall utilize all appropriate best management practices during construction to prevent spreading the plants to new sites. (Environment/Design)

14) The stone wall located on the east side of Diamond Oaks Boulevard will be reconstructed in a manner to resemble the wall conditions prior to its disturbance. If unexpected disturbed occurs to the stone walls along the Happy Hollow Cemetery or at 56 NH 125, the Bureau of Environmental shall be notified immediately and reconstruction to the pre-disturbance shall be required. (Design)

15) The following note will be added to the Final Design and Construction Plans: (Design/Construction)

IF ADULT SPOTTED OR BLANDING'S TURTLES ARE FOUND LAYING EGGS OR HATCHLNGS ARE FOUND IN A WORK AREA, PLEASE CONTACT MELISSA DOPERALSKI (603-479-1129 cell) or JOSH MEGYESY (cell 978-578-0802) FOR FURTHER INSTRUCTIONS.

2.18.3 Commitments to be carried out during construction

16) Stringent best management practices shall be utilized to prevent adverse impacts to surface and groundwater water quality during construction. (Construction)

17) Construction of this project is anticipated to cause temporary increases in noise and dust levels within the project area. Standard measures shall be employed to ensure such increases are minimized to the extent practicable and limited to the construction period. (Construction)

18) Standard pollution prevention measures will be employed to assure all negative impacts are avoided and/or minimized to the maximum extent practicable. (Construction)

19) Any spillage of oil or oil-based products during construction shall be promptly reported to regulatory agencies as appropriate. (Construction)

20) Access to all homes and businesses shall be maintained throughout construction. (Construction)

21) The northern long-eared bat flyer shall be shared with all operators, employees, and contractors working on the projects and of operators, employees, and contractors shall be made aware of all applicable environmental commitments. (Environment/Construction)

22) All sightings of dead or sick bats shall be immediately reported to the Bureau of Environment (Rebecca Martin, 271-3226). (Environment/Construction)

23) An archaeologist will monitor all work within 25 feet of Happy Hollow Cemetery as delineated by the existing stonewalls. If human remains or grave-associated artifacts are found during construction, the NHSHPO will be immediately notified and the appropriate course of action determined. Work will immediately cease until the appropriate treatment and recordation of the graves and their immediate setting are approved by the State Archaeologist. (Environment/Construction)

24) The Updated Proposed Action will require the development of a Project Operations Plan (POP), which specifies the Contractor's means and methods for handling and managing LRS. (Environment/Construction)

25) At the on-set of construction, sequencing will be reviewed to determine if tree clearing can occur during the non-active season for bats to minimize impacts. (Construction)

3.0 Summary and Comparison of Impacts

This written reevaluation addresses current environmental conditions and a revised design for Contract E (i.e., Updated Proposed Action) as per the requirements of 23 CFR 771.129. As presented throughout this document, the footprint of Contract E is smaller than the footprint of the proposed alternative presented in the 2005 EA. A comparison of the impacts is presented in Table 3.1-1 that are applicable to this 1.8-mile section of NH 125 located within Plaistow and Kingston.

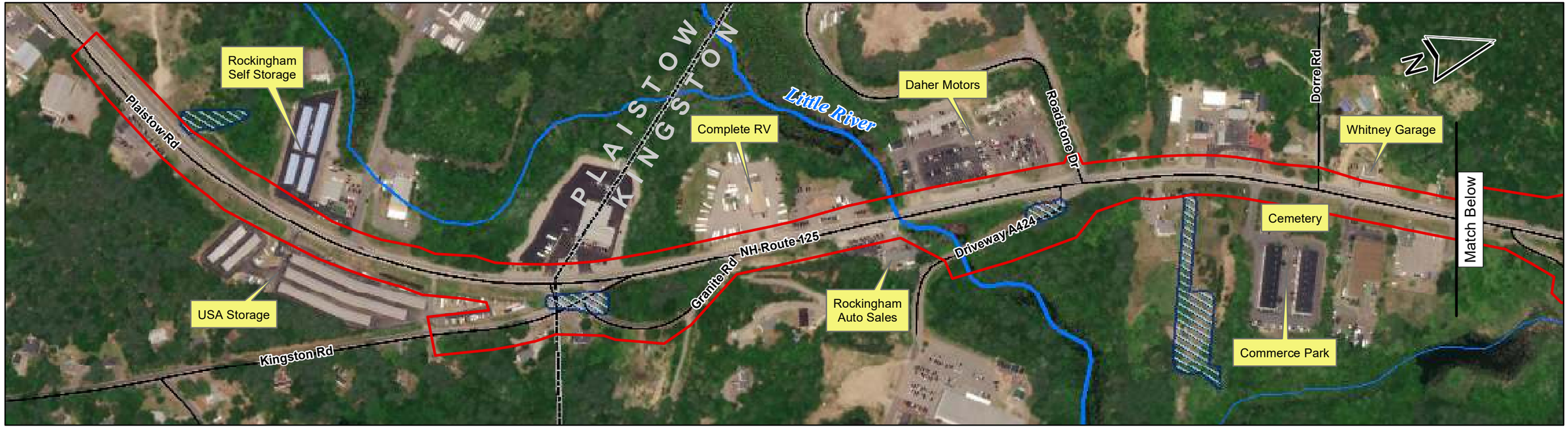
Table 3.1-1: Comparison of Impacts

Resource/Issue	EA 2005	Reevaluation 2021	Change in Impact
Traffic	Improved Level-of-Service	Improved Level-of-Service	No change
Air Quality	No impact	No impact	No change
Noise	Equal number of impacted receptors from both no-build and 2024 build scenarios.	Three receptors will be impacted from both the no-build and 2046 build scenarios. Two of the three receptors are proposed for acquisition. The barrier analysis resulted in the finding that a barrier for the single receptor was not feasible.	No change
Socio-Economics	Seven acquisitions	Two acquisitions	Reduction of five acquisitions
Land Use	Limited impact	Limited impact	Decrease in the project footprint; therefore, an overall reduction of impact will occur
Recreation and Conservation Land	No parcels impacted	Two parcels in Kingston are subject to a Restrictive Covenant will be impacted (Parcel 67 and 68)	Two parcels in Kingston are subject to a Restrictive Covenant will be impacted (Parcel 67 and 68)
Farmland Soils	Limited impact	Limited impact	Decrease in the project footprint; therefore, an overall reduction of impact will occur
Potentially Contaminated Properties	Eight properties identified	19 properties identified	Further coordination will be necessary during Final design with NHDOT Contamination Program to identify the current status and

			potential contamination within the project area including site releases, PFAS and Limited Reuse Soil.
Eligible Historic Sites	No Eligible sites identified	One property determined to be Eligible for National Register (No Affect Determination). Three historic stone walls identified.	No Affect/No change to historic properties. One stone wall (Diamond Oaks Boulevard) will be reconstructed to pre-disturbance condition.
Potential Archaeological Resource Sites	Four areas deemed sensitive	Three of four areas were investigated further resulting in finding of Not Eligible for National Register/no further survey needed.	No change
Water Quality	Water quality treatment provided	MS4 compliance and compliance with Alternation of Terrain permit rules and conditions	Decrease in roadway lane miles, decrease in new pavement. Additional water quality treatment areas and increase treatment standards.
Little River/Stream Impacts	Impacts to Little River at NH 125 included: 75 sq. ft of channel impact 149 sq. ft. of bank impact Impacts to Little River at Granite Road included 67 sq. ft. of channel impact 134 sq. ft of bank impact	Impacts to Little River at NH 125 include: 5 linear feet of channel impact 5 linear feet of bank impact No impacts to Little River proposed at Granite Road.	Reduction of impacts to the Little River
Groundwater Resources	No impact anticipated	No impact anticipated	Reduction in proposed impervious surface. No impact anticipated
Floodplains/Floodways	No impact	No Impact	No change
Wetland Resources	1.95 acres	0.5 acres	Reduction of 1.45 acres

Wildlife Habitat	Minimal impact anticipated	Minimal impact anticipated	Protection measures of Little River Wildlife Corridor to be considered in Final Design
Threatened/Endangered Species	No species identified	Northern Long-eared Bat, Blanding's Turtle, and Monarch Butterfly (candidate species)	Protection measures to be incorporated
Visual Resources	Limited change anticipated	Limit change anticipated	No change
Construction	Short-term impacts anticipated	Short-term impacts anticipated	No change

Figures



10044E Study Area Limits

10044E Water Quality Treatment Area

Roads

Rivers and Streams

0 350 700

Feet

PLAISTOW-KINGSTON 10044E

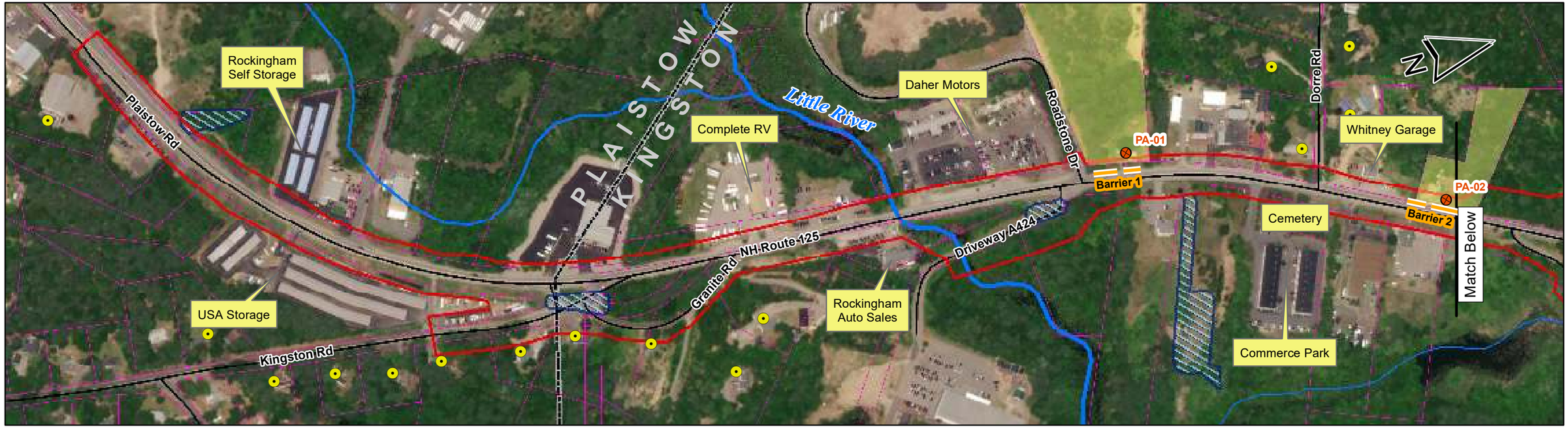
NH DEPARTMENT OF TRANSPORTATION

PROJECT AREA LIMITS

SCALE :	DATE :	FIGURE :
1 inch = 350 feet	JANUARY 2021	1

McFarland Johnson

M:\18301.00 GM2 Plaistow-Kingston\Draw\GIS\NEPA Figures\DEC 2020 Revisions\Figure 1 - Plaistow-Kingston Project Area Limits DEC2020.mxd



10044E Study Area Limits
10044E Water Quality Treatment Area
Tax Parcels
Town Boundary

Roads
Rivers and Streams

Noise Receptors

Impacted but Not Benefited
Not Benefited or Impacted

Barrier Locations (Not Feasible)
Properties to be Acquired by NHDOT

0 350 700
Feet

PLAISTOW-KINGSTON 10044E
NH DEPARTMENT OF TRANSPORTATION

IMPACTED NOISE RECEPTORS / BARRIER MODELING LOCATIONS

SCALE :	DATE :	FIGURE :
1 inch = 350 feet	JANUARY 2021	6

McFarland Johnson

M:\18301.00 GM2 Plaistow-Kingston\Draw\GIS\NEPA Figures\DEC 2020 Revisions\Figure 6 - Impacted Noise Receptors - Barrier Modeling Locations DEC2020.mxd

Parcel at 45 Old County Road
Parcel at 41 Old County Road
Old County Rd
Wilder Dr
PLAISTOW
KINGSTON
Brox Industries
Dorre Road Town Forest
Kingston IV (Dorre Rd Town Forest)
Dorre Rd
Nichols
Hunt Rd
Plaistow Rd
Little River
Roadstone Dr
Granite Rd
Kingston Rd
Area of Conservation Easement
NH Route 125
Colonial Rd
Kimberly Rd
Debra Rd
Area of Restrictive Covenant
Happy Hollow Ln
Post Mill Rd
Cox
Crane Crossing Rd
Cox
Pillsbury Pasture Rd
Hillside Rd
West Shore Park Rd
Newton Jct Rd

10044E Study Area Limits
10044E Water Quality Treatment Area
Town Boundary
Rivers and Streams
Recreation Points
Recreational Trails
Recreation Sites
Conservation Lands

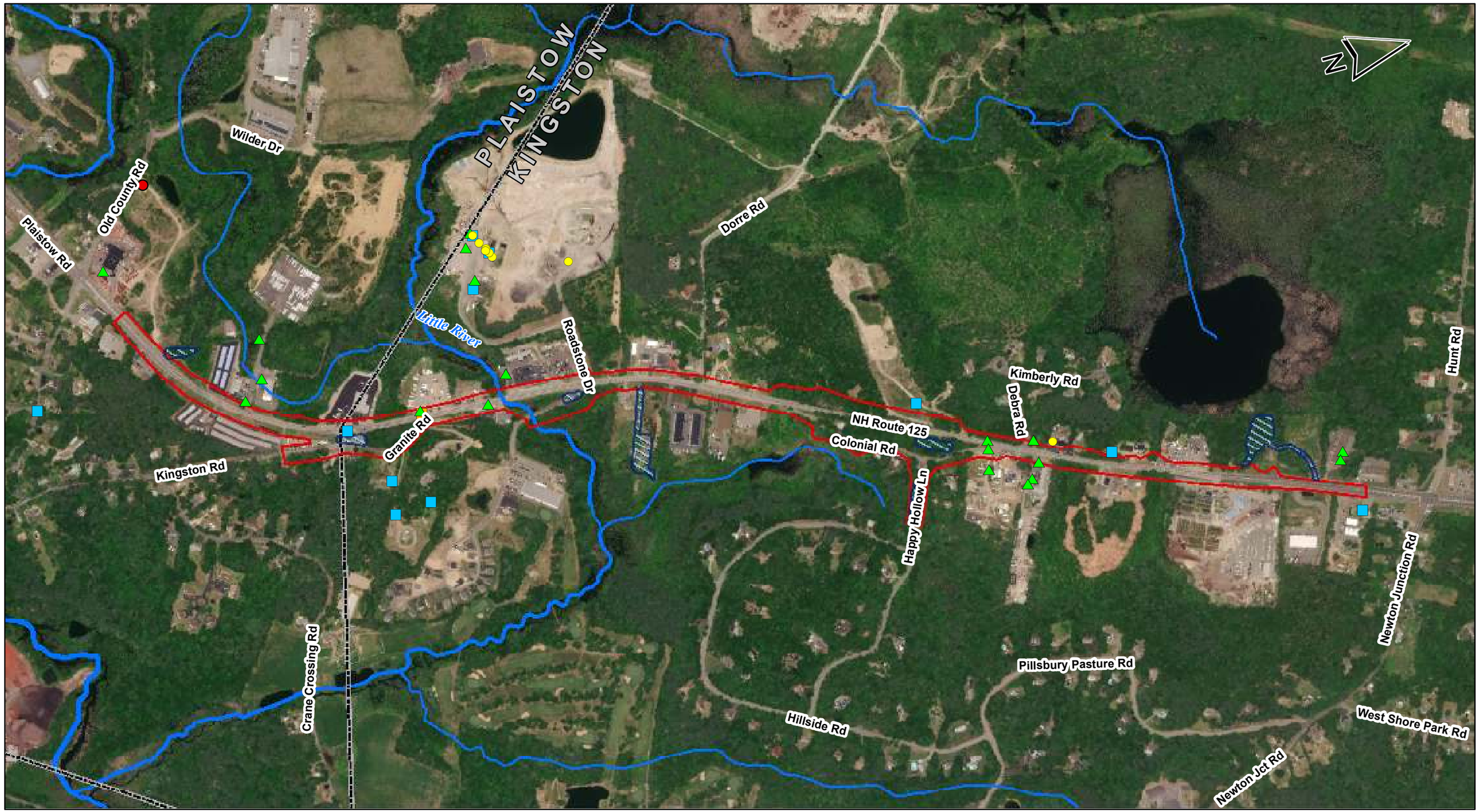
0 700 1,400
Feet

PLAISTOW-KINGSTON 10044E
NH DEPARTMENT OF TRANSPORTATION

PARKS, RECREATION AND CONSERVATION LANDS

SCALE :	DATE :	FIGURE :
1 inch = 700 feet	MARCH 2021	7

\\mjcolo-fs\M\18301.00 GM2 Plaistow-Kingston\Draw\GIS\NEPA Figures\DEC 2020 Revisions\Figure 07 - Plaistow-Kingston Parks, Recreation and Conservation Lands DEC2020.mxd



10044E Study Area Limits

10044E Water Quality Treatment Area

Town Boundary

Rivers and Streams

Aboveground Storage Tank Sites

Solid Waste Facilities

Hazardous Waste Generators

Automobile Salvage Yards

Remediation Sites

0 700 1,400

Feet

PLAISTOW-KINGSTON 10044E

NH DEPARTMENT OF TRANSPORTATION

POTENTIALLY CONTAMINATED PROPERTIES

SCALE :	DATE :	FIGURE :
1 inch = 700 feet	JANUARY 2021	8

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M:\18301.00 GM2 Plaistow-Kingston\Draw\GIS\NEPA Figures\DEC 2020 Revisions\Figure 8 - Plaistow-Kingston Potentially Contaminated Properties DEC2020.mxd

OFF THE WALL GYMNASTICS
FAST JACKS RESTAURANT
Plaistow Rd
Rockingham Self Storage
PLAISTOW
KINGSTON
Little River
Daher Motors
Complete RV
Roadstone Dr
Dorre Rd
Whitney Garage
N
NH DOT
NH DOT
NH DOT
NH Route 125
Driveway A424
Cemetery
Match Below
NE COMMERICAL GROUP INC
USA Storage
Granite Rd
Rockingham Auto Sales
COOL CONES AND PIZZA TOO
Kingston Rd
NH DOT
Commerce Park
SEACOAST UNITED SPORTS CLUB

Kimberly Rd
BAYBERRY POND
N
Match Above
FREDERICK
Debra Rd
Kingston Foreign Auto & Truck
ASA AUTO REPAIR
COOL CONES AND PIZZA TOO
NH DOT
SEACOAST LEARNING CTR
Hunt Rd
NH DOT
WEISKOPE
Colonial Rd
NH Route 125
Happy Hollow Ln
Kingston Collision Center
Patriot Park
Landscaper's Depot
PLAY AND LEARN CHILDREN CENTER
Newton Junction Rd
Hillside Rd
WILLIAM
CLEGG

10044E Study Area Limits
10044E Water Quality Treatment Area
Town Boundary
Roads
Rivers and Streams
NWI Wetlands

Water Well Inventory
Wellhead Protection Areas

Public Water Supply Wells
Community System
Non-Transient, Non-Community System
Transient, Non-Community System

Aquifer Transmissivity
Less than 2,000 feet sq./day
2,000 - 4,000 feet sq./day
Greater than 4,000 feet sq./day

NHRIV70061401-01 - No TMDL Required
Bayberry Pond-NHLAK700061401-01 - No TMDL Required

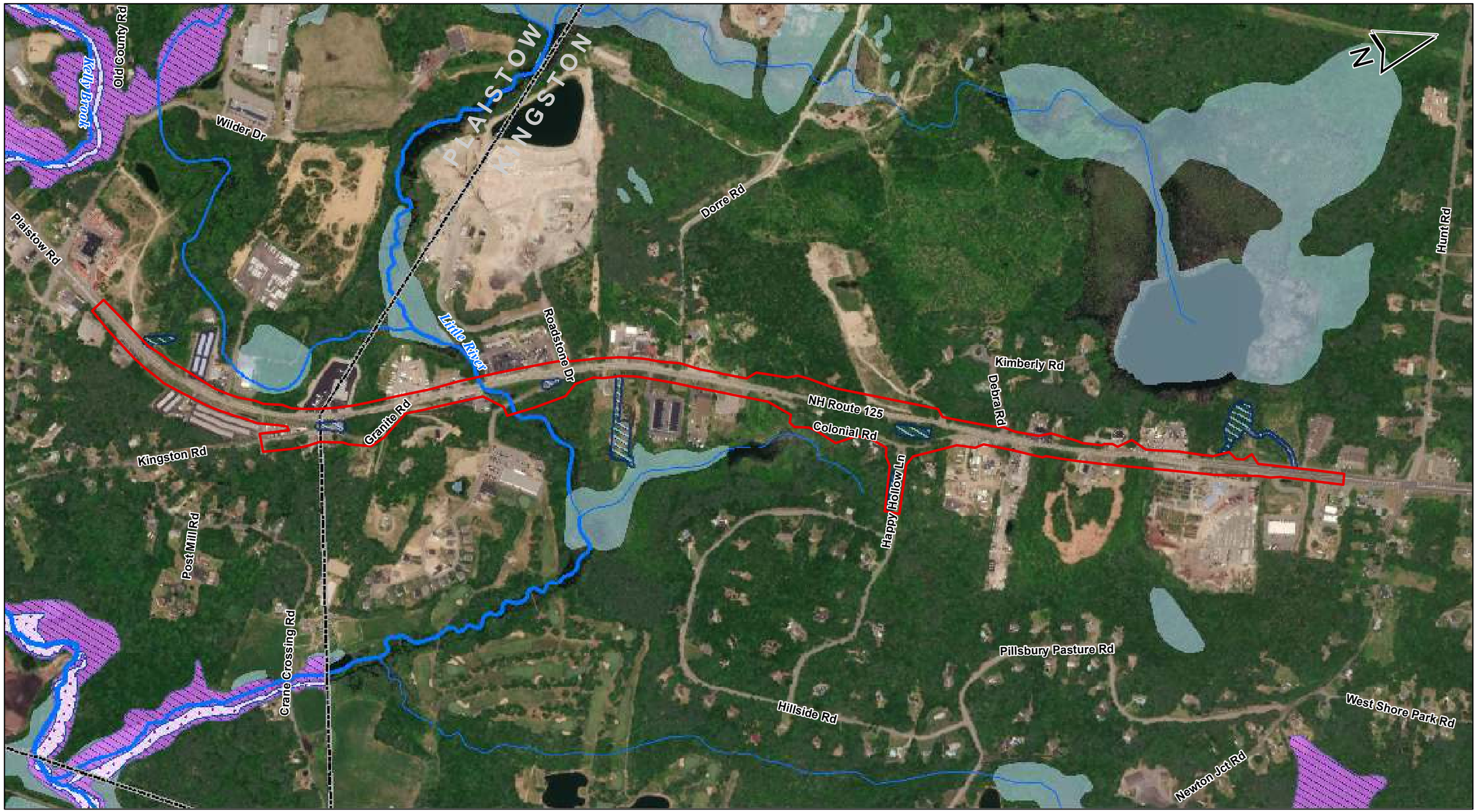
0 350 700
Feet

PLAISTOW-KINGSTON 10044E
NH DEPARTMENT OF TRANSPORTATION

GROUNDWATER RESOURCES

SCALE :	DATE :	FIGURE :
1 inch = 350 feet	MARCH 2021	9

\\mjcolo-fs\M\18301.00 GM2 Plaistow-Kingston\Draw\GIS NEPA Figures\DEC 2020 Revisions\Figure 09 - Plaistow-Kingston Groundwater Resources DEC2020.mxd



10044E Study Area Limits

10044E Water Quality Treatment Area

Town Boundary

Rivers and Streams

Waterbody

Regulatory Floodway

ZONE AE (100-Year Floodplain) - Base Flood Elevation Provided

0 700 1,400

Feet

PLAISTOW-KINGSTON 10044E

NH DEPARTMENT OF TRANSPORTATION

FLOODPLAINS AND FLOODWAYS

SCALE :	DATE :	FIGURE :
1 inch = 700 feet	JANUARY 2021	10

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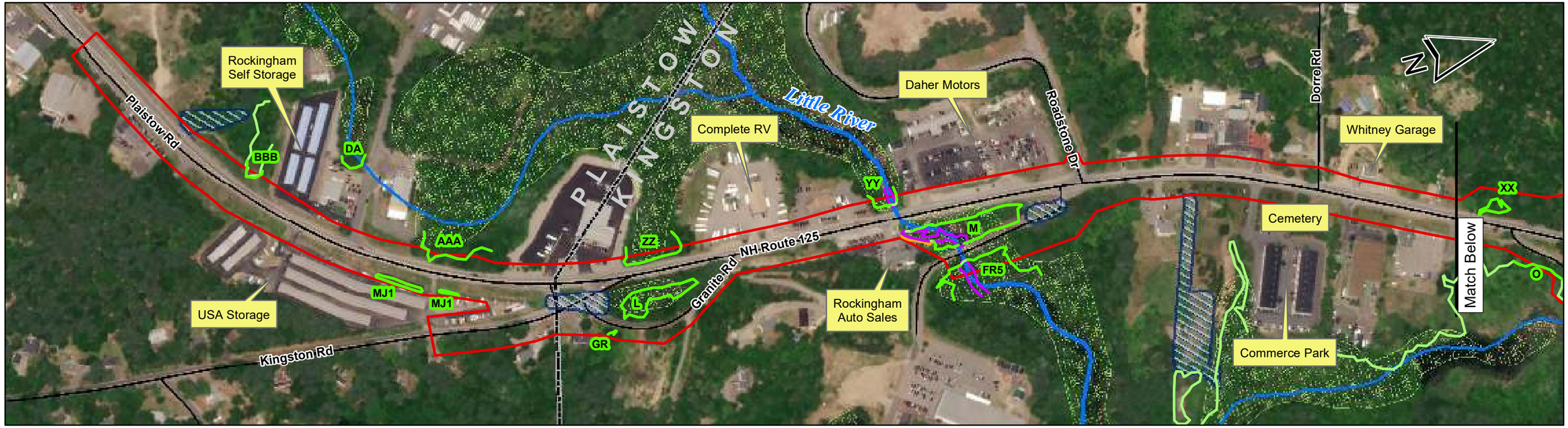
M:\18301.00 GM2 Plaistow-Kingston\Draw\GIS\NEPA Figures\DEC 2020 Revisions\Figure 10 - Plaistow-Kingston Floodplains and Floodways DEC2020.mxd



10044E Study Area Limits
10044E Water Quality Treatment Area
Town Boundary
Roads
Rivers and Streams
NWI Wetlands

Delineated Wetlands (MJ 2018)
Delineated Wetlands (GM2 2019-2020)
Delineated Ordinary High Water (MJ 2018)
Ordinary High Water (GM2 2019-2020)
Intermittent Stream (GM2 2019-2020)
Delineated Top of Bank (MJ 2018)

0 350 700
Feet

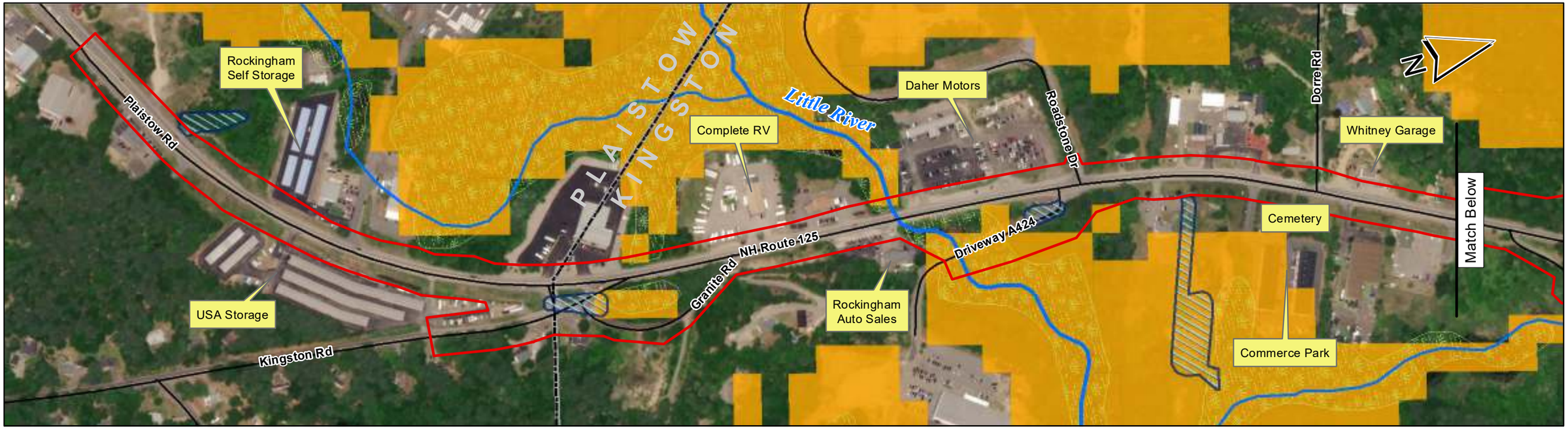
PLAISTOW-KINGSTON 10044E
NH DEPARTMENT OF TRANSPORTATION

DELINEATED WETLANDS

SCALE :	DATE :	FIGURE :
1 inch = 350 feet	JANUARY 2021	11

McFarland Johnson

M:\18301.00 GM2 Plaistow-Kingston\Draw\GIS\NEPA Figures\DEC 2020 Revisions\Figure 11 - Plaistow-Kingston Delineated Wetlands DEC2020.mxd



10044E Study Area Limits

10044E Water Quality Treatment Area

Town Boundary

Roads

Rivers and Streams

NWI Wetlands

Wildlife Action Plan Habitat Tiers

1 Highest Ranked Habitat in New Hampshire

2 Highest Ranked Habitat in Biological Region

3 Supporting Landscapes

0 350 700

Feet

PLAISTOW-KINGSTON 10044E

NH DEPARTMENT OF TRANSPORTATION

WILDLIFE ACTION PLAN HABITAT LOCATIONS

SCALE :	DATE :	FIGURE :
1 inch = 350 feet	MARCH 2021	12

NHDOT | McFarland Johnson | GM2 Associates

\\mjcolo-fs\M\18301.00 GM2 Plaistow-Kingston\Draw\GIS\NEPA Figures\DEC 2020 Revisions\Figure 12 - Plaistow-Kingston NH Wildlife Action Plan Habitat DEC2020.mxd

N

1

2

3

4

5

10044E Study Area Limits

10044E Water Quality Treatment Area

NHDOT Control Type, Species

- Type II, Japanese Knotweed
- Type II, Purple Loosestrife
- Type II, Common Reed
- Type I, Autumn Olive
- Type I, Common Buckthorn
- Type I, Glossy Buckthorn
- Type I, Japanese Barberry
- Type I, Morrow's Honeysuckle
- Type I, Multiflora Rose
- Type I, Oriental Bittersweet

0 700 1,400

Feet

PLAISTOW-KINGSTON 10044E

NH DEPARTMENT OF TRANSPORTATION

INVASIVE SPECIES

SCALE :	DATE :	FIGURE :
1 inch = 700 feet	MARCH 2021	13

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\\mjcolo-fs\M\18301.00 GM2 Plaistow-Kingston\Draw\GIS\NEPA Figures\DEC 2020 Revisions\Figure 13 - Plaistow-Kingston Invasive Species Locations DEC2020.mxd

Exhibit 1

Restrictive Covenant Parcels 67 and 68 (formerly Parcels 8, 9 and 9A)

000147

2008 JAN -3 AM 9:13

ROCKINGHAM COUNTY
REGISTRY OF DEEDS

DECLARATION OF RESTRICTIVE COVENANTS
FOR CONSERVATION PURPOSES

DECLARATION made this 26th day of December, 2007.

WHEREAS, The State of New Hampshire Department of Transportation, with a principal place of business at PO Box 483, 7 Hazen Drive, Concord, New Hampshire 03302-0483 (the "Declarant", which shall include the Declarant's successors and assigns), has acquired certain real property by Notice of Condemnation as described in documents recorded October 23, 2003, at Book 4178, Page 684 and Book 4178, Page 685 in the Rockingham County Registry of Deeds acquired from Frederick C. Sullivan, being New Hampshire Department of Transportation Parcels 8, 9 and 9A and also being Town of Kingston Tax Map 5, Lots 1B, 19 and 20 being unimproved land situated on NH Route 125 in the Town of Kingston, County of Rockingham, State of New Hampshire (the "Property");

WHEREAS, the Declarant acquired the Property in mitigation of environmental impacts, including wetland impacts, from the NH Route 125 widening project known as Plaistow-Kingston, MGS-STP-T-X5375(010), 10044B.

WHEREAS, the Declarant desires and intends to preserve and protect the Property in perpetuity for its wildlife habitat qualities, natural vegetation, soils, hydrology, wetlands, natural habitat and its scenic and aesthetic character so that it retains its natural qualities and functions; and

WHEREAS, the Declarant desires and intends to prevent any future development, construction, or use that will significantly and negatively impact the conservation values of the Property, while allowing the reserved rights of the Declarant listed below.

NOW, THEREFORE, the Declarant hereby declares that the Property, more particularly bounded and described in Appendix "A" attached to and made a part of this Declaration, is subject to the following use restrictions, WHICH SHALL RUN WITH THE LAND IN PERPETUITY, subject only to the provisions of this Declaration:

1. Any activity on or use of the Property inconsistent with the aforesaid purposes of this Declaration is prohibited.
2. The Property shall be maintained in perpetuity in an undeveloped and natural condition, so that all residential, industrial or commercial activities in the Property are prohibited, except agricultural, forestry, educational, conservation and low-impact non-commercial recreational activities as described below, and provided that the capacity of the Property to produce forest and agricultural crops shall not be degraded by on-site activities and that such activities will not cause significant pollution of surface or subsurface waters or soil erosion; also provided that such activities shall not significantly and negatively impact the conservation values of the Property.
   a. For the purposes hereof "agriculture" and "forestry" shall include agriculture, animal husbandry, floriculture and horticulture activities; the production of plant and animal products for domestic or commercial purposes, for example the growing and stocking of Christmas trees or forest trees of any size capable of producing timber; and the processing and sale of products produced on the Property, for example, pick-your-own fruits and vegetables, maple syrup and other forest products; and the cutting and sale of timber and other forest products not detrimental to the purposes of this Declaration.
   b. Agriculture and forestry on the Property shall be performed to the extent possible in accordance with a coordinated management plan for the sites and soils of the Property. Forestry and agricultural management activities shall be in accordance with the current scientifically-based practices recommended by the U.S. Cooperative Extension Service, U.S. Soil Conservation Service, or other government or private natural resource conservation and management agencies then active. Management activities shall not materially impair the scenic quality of the Property as viewed from public roads or public trails.

3. The Property shall not be subdivided or otherwise divided into parcels of separate distinct ownership, and none of the individual tracts which together comprise the Property shall be conveyed separately from one another.

4. No structure or improvement, including, but not limited to, a dwelling, any portion of a septic system, parking lot, portable or composting toilet, tennis court, swimming pool, dock, athletic field, pavilion, shooting range, telecommunications facility, aircraft landing strip, tower, conduit or utility line, billboard or other advertising display, driveway or road made of asphalt or other impervious surface, mobile home or other temporary or permanent structure or improvement shall be constructed, placed, or introduced onto the Property; EXCEPT,

   a. ancillary structures and improvements including, but not limited to, an unpaved road, dam, gate, fence, bridge, culvert, maple sugar house, or wildlife nest structure may be constructed, placed, or introduced onto the Property only to the extent necessary to accomplish the forestry, agricultural, educational, conservation, low-impact non-commercial recreational or wildlife habitat management uses of the Property, and provided that they are not detrimental to the purposes of this Declaration; and

   b. unpaved pedestrian trails and wildlife blinds may be constructed, placed, or introduced onto the Property only to the extent necessary to accomplish the low-impact non-commercial recreational uses of the Property and provided that they are not detrimental to the purposes of this Declaration;

5. No removal of trees, brush, minerals, gravel, sand, topsoil, nor filling, or other disturbances of the soil surface, nor any changes in topography, surface or subsurface water systems, wetlands, or natural habitat, except to eliminate existing, potential or future safety hazards, shall be allowed unless such activities:

   a. are commonly necessary in the accomplishment of the forestry, agricultural, educational, conservation, wildlife habitat management, or low-impact non-commercial recreational uses of the Property as permitted by this Declaration;

   b. do not harm state- or federally-recognized rare, threatened, endangered species or other species of conservation concern, or exemplary natural communities, such determination of harm to be made at the sole discretion of the Declarant and to be based upon information from the New Hampshire Natural Heritage Bureau or the agency then recognized by the State of New Hampshire as having responsibility for identification and/or conservation of such species;

   c. do not impact wetland vegetation, soils, hydrology or habitat;

   d. are not detrimental to the purposes of this Declaration; and

   e. are permitted and approved by all federal, state, local, and other governmental entities, as necessary, before said activities take place.

6. No outdoor signs shall be displayed on the Property except as desirable or necessary in the accomplishment of the forestry, agricultural, educational, conservation or low-impact non-commercial recreational uses of the Property, and provided such signs are not detrimental to the purposes of this Declaration. No sign shall be artificially illuminated.

7. There shall be no mining, quarrying, or excavation of rocks, minerals, gravel, sand, topsoil, or other similar materials on the Property, except in connection with any improvements made pursuant to the provisions of this Declaration. No such rocks, minerals, gravel, sand, topsoil, or other similar materials shall be removed from the Property.

8. There shall be no net loss or reduction in the volume of flood storage on the Property, nor shall there be any permanent obstructions in the floodplain.

9. There shall be no dumping, spreading, filling, injecting, stockpiling, burning, burial or storage of any waste, refuse or natural or man-made materials or substances whatsoever in or on the Property.

10. There shall be no use of pesticides, poisons, biocides or fertilizers, draining of wetlands, burning of marshland or disturbances or changes in the natural habitat of the premises.

11. There shall be no manipulation or alteration of the natural watercourses, lakeshores, marshes or other water bodies, nor shall any uses of or activities upon the Property be permitted which could be detrimental to water purity or to any vegetative, wildlife or hydrological function.

12. There shall be no operation of vehicles, snowmobiles, dune buggies, motorcycles, mini-bikes, go-cars, all-terrain vehicles, or any other type of motorized vehicle upon the Property, EXCEPT emergency vehicles and vehicles associated with wetland creation, restoration or remediation.

13. The Property shall in no way be used to satisfy the density, frontage, setback or other requirements of any applicable zoning ordinance or subdivision regulation with respect to the development of any other property.

14. All other disturbances of the Property are prohibited, except those explicitly authorized by this Declaration or by the Compensatory Mitigation Plan for Permit No. NAE-2004-1342 issued by the Department of the Army, New England District, Army Corps of Engineers dated May 10, 2007.

DECLARANT'S RESERVED RIGHTS

It is expressly understood and agreed that this Declaration does not grant or convey to the members of the general public any rights of ownership, entry or use of the Property. This Declaration is created solely for the protection of the Property, and the Declarant reserves the ownership of the fee simple estate and all remaining rights, including without limitation the right to exclude the general public and the right to use the Property for all purposes consistent with this Declaration. The general public may access the Property only through the auspices of the Declarant, which may allow the general public to participate in limited, low-impact, noncommercial recreational activities on the Property. Prohibition of public access is the responsibility of the Declarant by erection of "No Trespassing" signs around the Property in accordance with RSA 635:4 or other public trespass laws and regulations. Enforcement of any such posting is subject to local or State law enforcement, as provided by State law. The Declarant reserves the right to conduct forestry, forest management, agricultural, educational and conservation activities. The Declarant reserves the right to cut and remove dead, standing dead, diseased or endangering trees, shrubs, or plants on the Property.

LEGAL REMEDIES

The Declarant reserves the right to pursue all legal remedies against any party responsible for any actions detrimental to the purposes of this Declaration. The Declarant shall have the right to enforce this Declaration by appropriate legal means, including injunctive and other equitable relief, such as relief requiring restoration of the Property to its condition prior to the time of the violation, and shall be in addition to, and not in limitation of, any other rights and remedies available to the Declarant. No delay or omission by the Declarant in the exercise of any right or remedy upon any violation shall impair the Declarant's rights or remedies or be construed as a waiver.

TRANSFERABILITY AND TERMINATION

This Declaration preserves the Property in fulfillment of the legal obligations arising as a result of the planned improvements to the NH Route 125 corridor known as Plaistow-Kingston, MGS-STP-T-X5375(010), 10044B, including all projects associated with the widening of NH Route 125 from Plaistow, New Hampshire to Kingston, New Hampshire. In the event that the federal or state approvals requiring the preservation of the Property are found invalid or improper by a court or other body with competent jurisdiction, this Declaration shall be voidable at the sole election of the Grantee within one year after any such approval is found to be invalid or improper. Said Declaration shall otherwise run concurrently with the validity of the corresponding approvals or permits for the construction of said improvements. The remaining provisions of this paragraph are expressly subject to the above provisions of this paragraph, and this Declaration shall not be construed so as to negate the above provisions of this paragraph. The benefits of the restrictive covenants imposed hereby shall not be appurtenant to any particular parcel of land but shall be in gross, held by the Declarant in public trust, with the express intent of creating an equitable servitude, enforceable as against any party, including the Declarant, who hereafter violates the within restrictive covenants. The Declarant shall hold said benefit unless and until the Declarant assigns or transfers the benefit of the restrictive covenants imposed hereby to any other subdivision of the State of New Hampshire or to any subdivision of the U.S. Government, consistent with Section 170(c)(1) of the U.S. Internal Revenue Code of 1986, as amended (the "Code"), or to any qualified organization, within the meaning of Section 170(h)(3) of the Code, that has among its purposes the conservation and preservation of land and water areas and that agrees to and is capable of enforcing the purposes of this Declaration. Until such assignment or transfer, the Declarant expressly admits that it shall be hereafter estopped to deny that the within restrictive covenants do not apply to the Declarant. The assignment or transfer shall be accomplished by the conveyance of a conservation easement approved by the Department of the Army, New England District, Army Corps of Engineers. The burden of the restrictive covenants imposed hereby shall run with the Property and shall be enforceable against all future owners and tenants in perpetuity, until such assignment or transfer, when this Declaration and the restrictive covenants herein shall be terminated by the recording of a Release of Restrictive Covenants by the Declarant, contemporaneously with the conveyance of the aforesaid conservation easement. With the exception of the aforesaid admission of estoppel, nothing in this Declaration shall be interpreted or construed as a waiver of the State's sovereign immunity.

MERGER

In view of the public interest in the creation and enforcement of the restrictive covenants imposed hereby, the Declarant declares that it is its express intent that the provisions of this Declaration set forth herein are to last in perpetuity, subject to assignment or transfer and termination as described above, and that to that end, neither the doctrine of merger nor any other legal doctrine shall be deemed to eliminate

the restrictive covenants imposed hereunder, or any portion thereof. The Declarant expressly admits that it is estopped to argue that any legal or equitable basis exists to eliminate the restrictive covenants imposed hereunder, until the benefit of the restrictive covenants is assigned or transferred and the restrictive covenants are released as described above.

SEVERABILITY

If any provision of this Declaration, or the application thereof to any person or circumstance, is found to be invalid by a court of competent jurisdiction, by confirmation of an arbitration award or otherwise, such provision or the application thereof to persons or circumstances other than those to which it is found to be invalid shall not be affected thereby, nor shall the remainder of the provisions of this Declaration.

Said Declaration is being made in conjunction with the Plaistow-Kingston, MGS-STP-T-X5375(010), 10044B project.

IN WITNESS WHEREOF, the Declarant has hereto under set its hand this 20 day of December, 2007.

THE STATE OF NEW HAMPSHIRE

By: _____
for Commissioner
Department of Transportation

The State of New Hampshire Merrimack SS December 20 A.D., 2007

On this 20 day of December, 2007, before me LINDA M. CLIFFORD the undersigned officer, personally appeared the Commissioner of the Department of Transportation, and that as such Commissioner, being authorized so to do, execute the foregoing instrument for the purposes therein contained, by signing the name of the State of New Hampshire as the Commissioner of the Department of Transportation.

_____
~~Justice of the Peace~~/Notary Public
My Commission expires: May 5, 2009

APPENDIX "A"

Parcel No. 8:

A certain parcel of land, not homestead, situated on the Westerly side of NH Route 125, as now travelled, in the Town of Kingston, County of Rockingham, State of New Hampshire, and being near NH Route 125 Construction Base Line Station 2091+00 as shown on a Plan of Kingston, STP-X-019-1(24), 10044-C, on file in the records of the New Hampshire Department of Transportation and to be recorded in the Rockingham County Registry of Deeds, bounded and described as follows:

Southerly by land now or formerly of Eugene M. Quimby twenty-three (23) rods; Westerly by land now or formerly of said Eugene M. Quimby seven (7) rods; Northerly by land now or formerly of Thomas Barrett twenty-seven (27) rods; and on the Easterly side by the above mentioned highway ten (10) rods and nine (9) links; containing one (1) acre, more or less.

Containing one and thirty hundredths (1.30) acres, more or less.

Parcel Nos. 9 and 9A:

Certain parcels of land, not homestead, situated on the Westerly side of NH Route 125, as now travelled, in the Town of Kingston, County of Rockingham, State of New Hampshire, and being near NH Route 125 Construction Base Line Station 2092+00 as shown on a Plan of Kingston, STP-X-019-1(24), 10044-C, on file in the records of the New Hampshire Department of Transportation and to be recorded in the Rockingham County Registry of Deeds, bounded and described as follows:

Parcel No. 9:

Beginning at the corner of land formerly of Gideon Webster, situated on the road leading from Kingston to Plaistow; thence running Westerly by said land 33 rods to a stake and stones in the old fence; thence Northeasterly by land now or formerly of the late Abby G. Webster as the old fence and wall now stand 28½ rods to stone wall of the old homestead lot; thence by the wall of the old homestead lot 33-1/3 rods to the highway; thence Southeasterly by said highway 29½ rods to the bound begun at. Containing 4 acres, more or less.

EXCEPTING OUT OF THE ABOVE CONVEYANCE:

A certain parcel of land situated on the Westerly side of the Plaistow-Kingston Road in said Kingston, County and State, bounded and described as follows:

All of the land belonging to John J. Barrett and Christie B. Barrett that comes within a distance of 50 feet measured Easterly and 50 feet measured Westerly from the center line as shown on a plan of Kingston Federal Aid Project S. 300 (2) for 1951 on file in the records of the New Hampshire Department of Public Works and Highways between land now or formerly of Ann Whittier on the South near station 192+50 and land now or formerly of Ruth D. Bradley on the North near station 101+00. Containing 1.2 acres, more or less.

Parcel No. 9A:

A certain parcel of land situated in Kingston, Rockingham County, State of New Hampshire, being shown as Lot Number 1C on plan of land entitled "Subdivision of Land in Kingston, N. H. Prepared for Owner & Subdivider Jesse W. Shaw, 80 Mudnock Road, Salisbury, Mass. 01950", which plan is duly recorded in the Rockingham County Registry of Deeds as Plan Number D-12136, and which lot is more particularly bounded and described as follows:

Beginning at a point at the northeasterly corner of said tract, thence turning and running S. 46° 34' 02" E. 17.72 feet, more or less, to a point, as shown on said plan; thence turning and running S. 60° 25' 16" E. 59.36 feet, more or less, to a point, as shown on said plan; thence turning and running S. 57° 11' 24" E. 83.44 feet, more or less, to a point, as shown on said plan; thence turning and running along a stone wall, S. 43° 24' 26" E. 550.67 feet, more or less, to a point, as shown on said plan; thence turning and running S. 32° 09' 20" W. 317.36 feet, more or less, to a point, as shown on said plan; thence turning and running S. 39° 01' 00" W. 158.54 feet, more or less, to a point, as shown on said plan; thence turning and running S. 76° 15' 30" W. 103.18 feet, more or less, to a point, as shown on said plan; thence turning and running in a generally northwesterly direction 700 feet, more or less, along the shore of Bayberry Pond, to a point, as shown on said plan; thence turning and running N. 40° 06' 11" E. 470.00 feet, more or less, to the point of beginning.

Containing in all fourteen and twenty-nine hundredths (14.29) acres, more or less.

Exhibit 2

Land Conservation and Investment Program Clearance

Jennifer L. Zorn

From: Hollenbeck, Amanda <Amanda.Hollenbeck@osi.nh.gov>
Sent: Wednesday, January 15, 2020 1:11 PM
To: Jennifer L. Zorn
Subject: RE: NHDOT project in Plaistow and Kingston along Route 125

Hi Jennifer,

Thanks for inquiring. There are no LCIP properties within the limit of disturbance for this project.

Thank you,
Amanda

Amanda Hollenbeck
Stewardship Specialist
Conservation Land Stewardship Program
Office of Strategic Initiatives
107 Pleasant Street, Johnson Hall
Concord, NH 03301
(603)-271-6809
Amanda.Hollenbeck@osi.nh.gov

From: Jennifer L. Zorn <JZorn@mjinc.com>
Sent: Wednesday, January 8, 2020 1:55 PM
To: Hollenbeck, Amanda <Amanda.Hollenbeck@osi.nh.gov>
Cc: Jordan Tate <jtate@mjinc.com>
Subject: NHDOT project in Plaistow and Kingston along Route 125

Hi Amanda,
Happy New Year!

I'm completing an environmental review for the NHDOT for a 1.8 mile reconstruction project on NH Route 125 located in a Plaistow and Kingston. The research we have conducted so far has revealed there are conservation/recreation lands in the vicinity of the project corridor, but not near the proposed limits of disturbance. The enclosed figure show the project location, with the limit of disturbance (red line) and the location of potential stormwater facilities, such as basins (yellow line).

I'm writing to you to find out if there are any LCIP concerns for this project that we should be aware of.

Thank you so much!
Jennifer

Jennifer L. Zorn, AICP • Project Manager / Public Outreach Manager
McFarland Johnson

100 International Drive, Suite 300 • Portsmouth, NH 03801
NH Office: 603-380-9151
VT Office: 802-862-9381

Exhibit 3

Land and Community Heritage Investment Program Clearance

Jennifer L. Zorn

From: Paula Bellemore <pbellemore@lchip.org>
Sent: Tuesday, January 14, 2020 4:39 PM
To: Jennifer L. Zorn
Subject: RE: NHDOT project in Plaistow and Kingston along Route 125

Hi Jennifer,
LCHIP has not assisted in the conservation or preservation of historic, cultural or natural resources in the project area described.

Paula Bellemore
Natural Resource Specialist
(603) 224-4113

Land and Community Heritage Investment Program
3 North Spring St., Suite 100
Concord, NH 03301

Learn more at LCHIP.org

From: Jennifer L. Zorn <JZorn@mjinc.com>
Sent: Wednesday, January 08, 2020 1:59 PM
To: Paula Bellemore <pbellemore@lchip.org>
Subject: NHDOT project in Plaistow and Kingston along Route 125

Hi Paula,
Happy New Year!

I'm completing an environmental review for the NHDOT for a 1.8 mile reconstruction project on NH Route 125 located in a Plaistow and Kingston. The research we have conducted so far has revealed there are conservation/recreation lands in the vicinity of the project corridor, but not near the proposed limits of disturbance. The enclosed figure shows the project location, with the limit of disturbance (red line) and the location of potential stormwater facilities, such as basins (yellow line).

I'm writing to you to find out if there are any LCHIP concerns for this project that we should be aware of.

Thank you so much!
Jennifer

Jennifer L. Zorn, AICP • Project Manager / Public Outreach Manager
McFarland Johnson
100 International Drive, Suite 300 • Portsmouth, NH 03801
NH Office: 603-380-9151
VT Office: 802-862-9381

Exhibit 4

Land and Water Conservation Fund Clearance

Jennifer L. Zorn

From: DNCR: Land & Water Conservation Fund <LWCF@dncr.nh.gov>
Sent: Thursday, December 17, 2020 1:52 PM
To: Jennifer L. Zorn; DNCR: Land & Water Conservation Fund; Gegas, Vasilios (Bill)
Subject: RE: NHDOT project in Plaistow and Kingston along Route 125

Yes correct. Sorry, NO impacts.

Eric Feldbaum-Community Recreation Specialist/CPRP
Division of Parks and Recreation
NH Department of Natural and Cultural Resources
172 Pembroke Road
Concord, NH 03301
Phone 603.271.3556
Fax 603.271.3553
eric.feldbaum@dncr.nh.gov
www.nhstateparks.org

From: Jennifer L. Zorn <JZorn@mjinc.com>
Sent: Tuesday, December 15, 2020 11:03 AM
To: DNCR: Land & Water Conservation Fund <LWCF@dncr.nh.gov>; Gegas, Vasilios (Bill) <vasilios.n.gegas@dncr.nh.gov>
Subject: RE: NHDOT project in Plaistow and Kingston along Route 125

Thank you so much Eric!

Just to confirm, you mean there are no potential impacts.....?

From: DNCR: Land & Water Conservation Fund <LWCF@dncr.nh.gov>
Sent: Tuesday, December 15, 2020 8:44 AM
To: Jennifer L. Zorn <JZorn@mjinc.com>; Gegas, Vasilios (Bill) <vasilios.n.gegas@dncr.nh.gov>
Subject: RE: NHDOT project in Plaistow and Kingston along Route 125

Jennifer,

Based on the information provided there are (no) potential impacts to any Land and Water Conservation Fund State Assistance Projects in the vicinity of your proposed project.

Thanks
Eric

Eric Feldbaum-Community Recreation Specialist/CPRP

Division of Parks and Recreation
NH Department of Natural and Cultural Resources
172 Pembroke Road
Concord, NH 03301
Phone 603.271.3556
Fax 603.271.3553
eric.feldbaum@dncr.nh.gov
www.nhstateparks.org

From: Jennifer L. Zorn <JZorn@mjinc.com>
Sent: Wednesday, December 9, 2020 1:17 PM
To: Gegas, Vasilios (Bill) <vasilios.n.gegas@dncr.nh.gov>
Cc: DNCR: Land & Water Conservation Fund <LWCF@dncr.nh.gov>
Subject: NHDOT project in Plaistow and Kingston along Route 125

Hi Bill,
I hope you are well!

I'm completing an environmental review for the NHDOT which involved a 1.8 mile reconstruction project on NH Route 125 located in a Plaistow and Kingston. The research we have conducted so far has revealed there are conservation/recreation lands in the vicinity of the project corridor, but not near the proposed limits of disturbance. The enclosed figure shows the project location, with the limit of disturbance (red line) and the location of potential stormwater facilities, such as retention/detention basins (yellow line).

I'm writing to you to find out if there are any LWCF concerns for this project that we should be aware of.

Thank you so much!
Jennifer

Jennifer L. Zorn, AICP • Project Manager / Public Outreach Manager
McFarland Johnson
100 International Drive, Suite 300 • Portsmouth, NH 03801
NH Office: 603-380-9151
VT Office: 802-862-9381

Exhibit 5

No Historic Properties Affected Memo

10267

New Hampshire DOT
Department of Transportation

Victoria F. Sheehan
Commissioner

THE STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION

William Cass, P.E.
Assistant Commissioner

PLAISTOW-KINGSTON
X-A000(378)
10044E

No Historic Properties Affected Memo

In order to assist the Federal Highway Administration (FHWA) in complying with Section 106 of the National Historic Preservation Act of 1966 and its amendments, The New Hampshire Department of Transportation (NHDOT), in consultation with the New Hampshire Division of Historical Resources (SHPO), has reviewed this undertaking according to the standards and procedures detailed in the 2018 Programmatic Agreement regarding the Federal-Aid Highway Program in New Hampshire.

Project Description
The intent of this project is to improve the safety and capacity of NH Route 125 related to existing access density and increasing traffic volumes. The project begins on NH Route 125, approximately 400ft north of Old County Road in Plaistow, extending 1.8 miles north to approximately 500ft south of Newton Junction/Hunt Road in Kingston. Improvements to side roads are anticipated at Kingston Road, Granite Road, Diamond Oaks Boulevard, Colonial Road, Dorre Road and Happy Hollow Lane. Improvements include 8,900 feet of widening with pavement removal, shimming and repaving within the existing roadway typical. Side road reconstruction to address mainline profile changes and geometric improvements, including minor consolidation/realignment with the elimination of two access points. The proposed roadway will be 3 lanes wide with a dedicated center turn lane. Drainage upgrades and stormwater treatment included, as well as other ancillary work.

Identification
Above-Ground
Elden-Mathews Cottage, 56 Route 125, Kingston (KIN0110) is eligible under Criterion A as one of the only survivors from a significant period of camp and cabin construction in wooded and rural South Kingston. It is also eligible under Criterion C due to its high historic integrity.

The following resources were found not eligible:

- KIN0019 – Happy Hollow Cemetery, Kingston
- KIN0027 – 49 Route 125, Kingston
- KIN0107 – 5 Route 125, Kingston
- KIN0108 – 44 Route 125, Kingston
- KIN0111 – 58 Route 125, Kingston
- KIN0112 – Culvert at Little River, Route 125
- PLI1016 – 195 Plaistow Rd, Plaistow
- PLI0107 – 93 Kingston Rd, Plaistow

A stonewall located along Diamond Oaks Boulevard was identified as eligible for reconstruction. Impacts to stonewalls will follow NHDOT's Stonewall Policy.

Archaeology
Updated surveys to confirm areas of previously identified archaeological sensitivity sites by the Little River and at location for proposed water quality BMP site were completed. Phase II archeological testing of the previously

identified archaeological sites and the Phase IA/IB determined that no further archeological surveys will be required. Slope work within 25 feet of the Happy Hollow Cemetery will require monitoring during construction by a qualified archaeologist.

Public Consultation

Public Information meetings were held on 10/17/2019 and 10/29/2020. One interested property owner within the project area reached out to FHWA regarding Consulting Party status, however never asked to become one.

NHDHR was contacted via Request for Project Review in November 2018. Meetings with NHDHR occurred in February, July and August of 2020.

Determination of Effect

Elden-Mathews Cottage, 56 Route 125, Kingston (KIN0110): The proposed project will require the creation of a wet extended detention pond (BMP), to provide treatment of stormwater on the adjacent property to the northeast owned by NHDOT. However, the project will have no direct impacts to the property and a tree buffer of approximately 70-80 feet will remain between the proposed BMP and the cottage. Therefore, there will be no effect on this historic property.

Happy Hollow Cemetery, KIN0019: Although the Happy Hallow Cemetery is not individually eligible, any excavation within 25' of the cemetery will be monitored during construction, per NHRSA 289:3.

Based on a review pursuant to 36 CFR 800.4, NHDOT has determined that no historic or archaeological resources are affected in the project area and that no further survey work is needed.

The result of identification and evaluation for the proposed contract is a finding of **No Historic Properties Affected.**

Section 4(f) *(to be completed by FHWA)*	*There Will Be:*	☒ **No 4(f);**	☐ **Programmatic 4(f);**	☐ **Full 4 (f);** or
	☐ **A finding of *de minimis* 4(f) impact as stated:** In addition, with NHDHR concurrence of no adverse effect for the above undertaking, and in accordance with 23 CFR 774.3, FHWA intends to, and by signature below, does make a finding of *de minimis* impact. NHDHR's signature represents concurrence with both the no adverse effect determination and the *de minimis* findings. Parties to the Section 106 process have been consulted and their concerns have been taken into account. Therefore, the requirements of Section 4(f) have been satisfied.			

In accordance with the Advisory Council's regulations, we will continue to consult, as appropriate, as this project proceeds.

Jill Edelmann — 11/6/2020

Jill Edelmann — Date

Cultural Resources Manager

Concurred with by the NH State Historic Preservation Officer:

Nadine Miller — 11/10/2020

Nadine Miller — Date

Deputy State Historic Preservation Officer

NH Division of Historical Resources

Exhibit 7

Natural Heritage Bureau Data Search and

NH Fish & Wildlife Guidance

CONFIDENTIAL – NH Dept. of Environmental Services review

Memo

NH NATURAL HERITAGE BUREAU
NHB DATACHECK RESULTS LETTER

To: Jennifer Zorn, McFarland Johnson
53 Regional Drive
Concord, NH 03301

From: Amy Lamb, NH Natural Heritage Bureau
Date: 10/6/2020 (valid for one year from this date)
Re: Review by NH Natural Heritage Bureau
NHB File ID: NHB20-2931 Town: Kingston, Plaistow Location: NH 125
Description: NHDOT proposed to reconstruct 1.8 miles of existing roadway and add water quality BMPs within corridor.
cc: Kim Tuttle

As requested, I have searched our database for records of rare species and exemplary natural communities, with the following results.

Comments: Please contact the NH Fish & Game Department to address wildlife concerns.

Vertebrate species	State[1]	Federal	Notes
Blanding's Turtle (*Emydoidea blandingii*)	E	--	Contact the NH Fish & Game Dept (see below).
Northern Black Racer (*Coluber constrictor constrictor*)	T	--	Contact the NH Fish & Game Dept (see below).
Spotted Turtle (*Clemmys guttata*)	T	--	Contact the NH Fish & Game Dept (see below).
Wood Turtle (*Glyptemys insculpta*)	SC	--	Contact the NH Fish & Game Dept (see below).

[1]Codes: "E" = Endangered, "T" = Threatened, "SC" = Special Concern, "--" = an exemplary natural community, or a rare species tracked by NH Natural Heritage that has not yet been added to the official state list. An asterisk (*) indicates that the most recent report for that occurrence was more than 20 years ago.

Contact for all animal reviews: Kim Tuttle, NH F&G, (603) 271-6544.

A negative result (no record in our database) does not mean that a sensitive species is not present. Our data can only tell you of known occurrences, based on information gathered by qualified biologists and reported to our office. However, many areas have never been surveyed, or have only been surveyed for certain species. An on-site survey would provide better information on what species and communities are indeed present.

Department of Natural and Cultural Resources
Division of Forests and Lands
(603) 271-2214 fax: 271-6488

DNCR/NHB
172 Pembroke Rd.
Concord, NH 03301

Jennifer L. Zorn

From: Tuttle, Kim <Kim.Tuttle@wildlife.nh.gov>
Sent: Monday, October 5, 2020 9:58 AM
To: Jennifer L. Zorn
Cc: Doperalski, Melissa
Subject: RE: 10044-E NH 125 Plaistow-Kingston: Blanding's Turtle recommendations for NEPA document
Attachments: SEEKING REPORTS OF RARE TURTLES.PDF

Hello Jennifer,

These are our typical recommendation for projects with the potential to encounter protected turtles during their active period from April through November. If Blanding's turtle have been documented in the area, there usually is also a high probability for spotted turtle to also be present. The attached flyer should be made available to construction personnel. Female Blanding's and spotted turtles will lay eggs in exposed mineral soils in sunny locations including road shoulders during turtle nesting season from the end of May until the beginning of July, peaking in mid June. Most newly hatched turtles will emerge from their nests from August through October. If any are found, please attempt to take photographs and send to us for documentation. The following note should be prominently added to the plans along with a photo of Blanding's and spotted turtle that you may copy from the flyer:
IF ADULT SPOTTED OR BLANDING'S TURTLES ARE FOUND LAYING EGGS OR HATCHLNGS ARE FOUND IN A WORK AREA, PLEASE CONTACT MELISSA DOPERALSKI (603-479-1129 cell) or JOSH MEGYESY (cell 978-578-0802) FOR FURTHER INSTRUCTIONS.

Avoid the use of welded plastic or 'biodegradable plastic' netting or thread in erosion control matting. There are numerous documented cases of snakes, turtles, and other wildlife being trapped and killed in erosion control matting with synthetic netting and thread. The use of erosion control berm, white Filtrexx Degradable Woven Silt Sock, or several 'wildlife friendly' options such as woven organic material (e.g. coco or jute matting such as North American Green SC150BN or equivalent) are readily available. Please let us know what specific product you intend on using, if needed.

Every effort should be taken to avoid direct and indirect impacts to vernal pools including preventing contaminated stormwater roadway runoff from being directed toward vernal pools. The amphibian reproduction that occurs in these pools provides a significant food source for Blanding's and spotted turtles. Blanding's turtles will also bury themselves in the substrate of vernal pools (aestivation) for one or two months in order to avoid the summertime heat (usually August and early September) and may hibernate in them for the winter if water depths are sufficient (usually 3 ft. or more).

Culvert replacements should be by bridge, box, RCP, CMP, or metal elliptical/pipe arch to provide aquatic species passage opportunities. The walls of RCPs are porous and rough, absorb water and thus retain humidity in the culvert in dry conditions. When there is flow in the culvert, they provide a roughened surface for salamanders, etc. to crawl along and also reduce water velocities. Plastic smooth bore culverts should only be used at wetland crossings that are backwatered at all times with little to no velocity. These culverts should be oversized to allow more light into the culvert, attracting reptiles and other wildlife to enter.

Please inform NHFG reviewers if your project will require or may require an Alteration of Terrain Permit. Be advised that as of June 2, 2020, DES has adopted a new rule; Env-Wq 1503.19 intro and (h), pertaining to the criteria for issuance of AoT permits specific to RSA 212-A:9, III threatened and endangered wildlife species. The rule results in a change to what information on threatened and endangered wildlife species will need to be submitted in order for the AoT program to make a permit decision: In addition to a NHB datacheck results letter, the rule now also requires an assessment or survey of the project area for the presence of threatened and endangered rare wildlife species or their habitat. Surveys

should address all wildlife species identified in the NHB datacheck results letter as well as species that may not yet have been recorded with NHB but may be present in the project area. This work needs to be completed by a qualified wildlife biologist and would need to be coordinated with NHFG.

Thanks,

Kim Tuttle
Wildlife Biologist
NH Fish and Game
11 Hazen Drive
Concord, NH 03301
603-271-6544

From: Jennifer L. Zorn <JZorn@mjinc.com>
Sent: Monday, October 5, 2020 9:24 AM
To: Tuttle, Kim <Kim.Tuttle@wildlife.nh.gov>
Subject: FW: 10044-E NH 125 Plaistow-Kingston: Blanding's Turtle recommendations for NEPA document

Hi Kim, Happy Monday!

I am checking in with you again on this matter. I have not yet received the updated NHB search, but should have this soon, possibly this week.

The project team is seeking to attend another NRACM, but we are hoping that you may have some input on this matter before that meeting occurs.

I'm available on email or phone anytime. 603-931-3943

Thank you,
Jennifer

From: Jennifer L. Zorn
Sent: Thursday, August 20, 2020 8:25 AM
To: Kim.Tuttle@wildlife.nh.gov
Subject: 10044-E NH 125 Plaistow-Kingston: Blanding's Turtle recommendations for NEPA document

Hi Kim, Good Morning,

This is Jennifer Zorn, from McFarland-Johnson. I'm working with the NHDOT on the NH 125 project located in Plaistow and Kingston (a 1.8 mile section) on a improvements to the roadway. At yesterday's NRACM, Amy Lamb stated that a recent record of a Blanding's Turtle has been recorded near the area known as Misery Hill. I was advised to reach out to you to obtain recommendations on this matter.

The work at this time is to reevaluate the NEPA document for the project published in 2005. The actual permitting will not begin until sometime in 2021.

I have enclosed the NHB search from 2019 (I'm requesting a new search today).

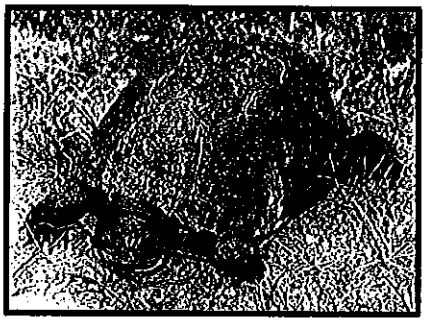
I'm very happy to provide you any information that you need to assist in this matter. I just wanted to get the dialogue between us started.

Thank you!
Jennifer

Jennifer L. Zorn, AICP • Project Manager / Public Outreach Manager
McFarland Johnson
NH Office: 603-380-9151 ext. 1410
VT Office: 802-862-9381 ext. 1410

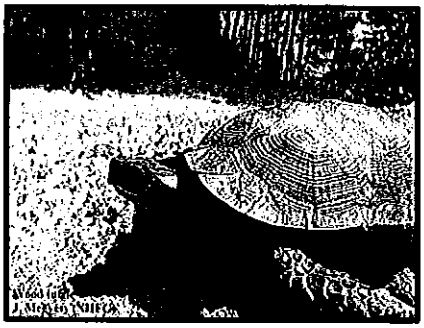
SEEKING REPORTS OF RARE TURTLES

The NH Fish & Game Department is collecting observations of four turtle species:



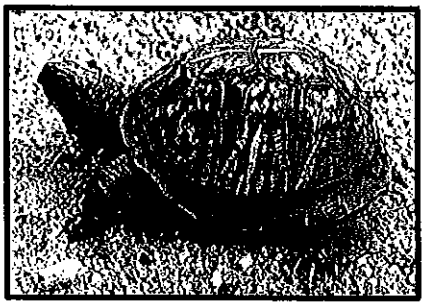
Blanding's turtle (state endangered)

- Large, dark/black domed shell with lighter speckles
- Distinct yellow throat/chin
- Aquatic but often moves on land



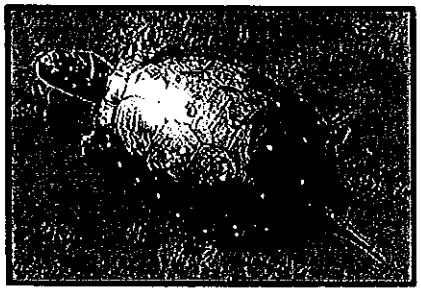
Wood turtle (special concern)

- Sculpted, pyramidal brownish shell
- Orange around neck and limbs
- River/stream turtle spending many months on land



Eastern box turtle (state endangered)

- Small terrestrial turtle with highly domed shell
- Irregular yellow or orange markings over brown/black base



Spotted turtle (state threatened)

- Small, mostly aquatic with black or dark brown with yellow spots.
- Fairly flat shell compared to Blanding's turtle

Report sightings to RAARP@wildlife.nh.gov or 603-271-2461 *Please report promptly, noting specific location and date -- Photographs strongly encouraged*

Jennifer L. Zorn

From: Magee, John <john.magee@wildlife.nh.gov>
Sent: Tuesday, January 14, 2020 8:42 AM
To: Jennifer L. Zorn
Cc: Tuttle, Kim; Carpenter, Matthew
Subject: RE: NHDOT project in Plaistow and Kingston along Route 125

Hi Jennifer. On June 14, 2017, NHDES conducted electrofishing surveys right at the crossing in question at Rt 125, about 1,000 feet downstream on Crane Crossing Road, and about 1,000 feet of that where the Little River crosses under Rt 125 in Plaistow. They caught American eel, banded sunfish, brown bullhead, blacknose dace, common sunfish, creek chubsucker, common white sucker, golden shiner, fallfish, redfin pickerel, yellow bullhead and yellow perch. NH Fish and Game did a survey in 1984 about 1,500 feet downstream of that and caught similar species.

American eel, banded sunfish and redfin pickerel are Species of Greatest Conservation Need in the New Hampshire Wildlife Action Plan and also Species of Special Concern in New Hampshire.

John

John Magee, M.S., Certified Fisheries Professional Past President, Northeastern Division of the American Fisheries Society Fisheries Habitat Research and Management Programs Coordinator New Hampshire Fish and Game Department
11 Hazen Drive, Concord, NH 03301
Phone 603-271-2744
Fax 603-271-5829

-----Original Message-----
From: Jennifer L. Zorn <JZorn@mjinc.com>
Sent: Thursday, January 9, 2020 4:52 PM
To: Magee, John <john.magee@wildlife.nh.gov>
Cc: Tuttle, Kim <Kim.Tuttle@wildlife.nh.gov>
Subject: RE: NHDOT project in Plaistow and Kingston along Route 125

Hi John,
Thank you for the quick reply.

Yes, see enclosed.

Thank you,
Jennifer

-----Original Message-----
From: Magee, John <john.magee@wildlife.nh.gov>
Sent: Thursday, January 9, 2020 4:49 PM

To: Jennifer L. Zorn <JZorn@mjinc.com>
Cc: Tuttle, Kim <Kim.Tuttle@wildlife.nh.gov>
Subject: Fw: NHDOT project in Plaistow and Kingston along Route 125

Hi Jennifer. Thanks for sending that. Do you have a NHB number (if so, can you send the pdf)?

John

John Magee, M.S., Certified Fisheries Professional Past President, Northeastern Division of the American Fisheries Society Fisheries Habitat Research and Management Programs Coordinator New Hampshire Fish and Game Department
11 Hazen Drive
Concord, NH 03301
p 603-271-2744
f 603-271-5829

From: Jennifer L. Zorn <JZorn@mjinc.com>
Sent: Thursday, January 9, 2020 2:06 PM
To: Magee, John
Subject: NHDOT project in Plaistow and Kingston along Route 125

EXTERNAL: Do not open attachments or click on links unless you recognize and trust the sender.

Hi John,

Happy New Year!

I'm completing an environmental review for the NHDOT for a 1.8 mile reconstruction project on NH Route 125 located in a Plaistow and Kingston. The enclosed figure shows the project location, with the limit of disturbance (red line) and the location of potential stormwater facilities, such as basins (yellow line). The waterbody of interest is the Little River which crosses NH Route 125 and Driveway A424 (see the top panel on the figure). Delineated and NWI wetlands are also shown on the figure.

I'm writing to you to find out if there are any fishery or fishery habitat concerns for this project that we should be aware of. The culverts for the Little River will be replaced as part of the project. We have had one NRACM and plan another meeting at the beginning of the permitting process. Right now, we are preparing the NEPA document.

Thank you so much!

Jennifer

Jennifer L. Zorn, AICP * Project Manager / Public Outreach Manager

[cid:image001.jpg@01CFD0F2.5AAA7FA0]

100 International Drive, Suite 300 * Portsmouth, NH 03801 NH Office: 603-380-9151

VT Office: 802-862-9381

Exhibit 8

U.S. Fish & Wildlife Service Verification Letter

Re: Northern Long-eared Bat

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New England Ecological Services Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5094
Phone: (603) 223-2541 Fax: (603) 223-0104
http://www.fws.gov/newengland

In Reply Refer To:
Consultation Code: 05E1NE00-2018-TA-2099
Event Code: 05E1NE00-2020-E-02819
Project Name: Plaistow-Kingston (NHDOT 10044-E)

January 15, 2020

Subject: Verification letter for the 'Plaistow-Kingston (NHDOT 10044-E)' project under the January 5, 2016, Programmatic Biological Opinion on Final 4(d) Rule for the Northern Long-eared Bat and Activities Excepted from Take Prohibitions.

Dear Marc Laurin:

The U.S. Fish and Wildlife Service (Service) received on January 09, 2020 your effects determination for the 'Plaistow-Kingston (NHDOT 10044-E)' (the Action) using the northern long-eared bat (*Myotis septentrionalis*) key within the Information for Planning and Consultation (IPaC) system. This IPaC key assists users in determining whether a Federal action is consistent with the activities analyzed in the Service's January 5, 2016, Programmatic Biological Opinion (PBO). The PBO addresses activities excepted from "take"[1] prohibitions applicable to the northern long-eared bat under the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).

Based upon your IPaC submission, the Action is consistent with activities analyzed in the PBO. The Action may affect the northern long-eared bat; however, any take that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o). Unless the Service advises you within 30 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that the PBO satisfies and concludes your responsibilities for this Action under ESA Section 7(a)(2) with respect to the northern long-eared bat.

Please report to our office any changes to the information about the Action that you submitted in IPaC, the results of any bat surveys conducted in the Action area, and any dead, injured, or sick northern long-eared bats that are found during Action implementation. If the Action is not completed within one year of the date of this letter, you must update and resubmit the information required in the IPaC key.

If the Action may affect other federally listed species besides the northern long-eared bat, a proposed species, and/or designated critical habitat, additional consultation between you and this Service office is required. If the Action may disturb bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act is recommended.

---

[1]Take means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct [ESA Section 3(19)].

Action Description
You provided to IPaC the following name and description for the subject Action.

1. Name

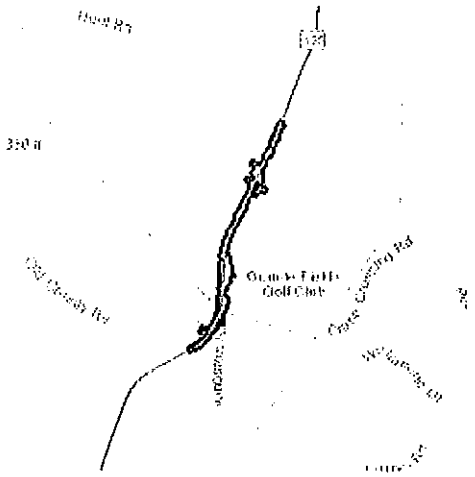
Plaistow-Kingston (NHDOT 10044-E)

2. Description

The following description was provided for the project 'Plaistow-Kingston (NHDOT 10044-E)':

> The proposed project involves the reconstruction and widening of approximately 1.8 miles of Route 125 in the Towns of Plaistow and Kingston, New Hampshire. The project is still in the design phase and proposed alternatives and impacts are still being determined.

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/42.86659924349853N71.09009267874937W



Determination Key Result

This Federal Action may affect the northern long-eared bat in a manner consistent with the description of activities addressed by the Service's PBO dated January 5, 2016. Any taking that may occur incidental to this Action is not prohibited under the final 4(d) rule at 50 CFR §17.40(o). Therefore, the PBO satisfies your responsibilities for this Action under ESA Section 7(a)(2) relative to the northern long-eared bat.

Determination Key Description: Northern Long-eared Bat 4(d) Rule

This key was last updated in IPaC on May 15, 2017. Keys are subject to periodic revision.

This key is intended for actions that may affect the threatened northern long-eared bat.

The purpose of the key for Federal actions is to assist determinations as to whether proposed actions are consistent with those analyzed in the Service's PBO dated January 5, 2016.

Federal actions that may cause prohibited take of northern long-eared bats, affect ESA-listed species other than the northern long-eared bat, or affect any designated critical habitat, require ESA Section 7(a)(2) consultation in addition to the use of this key. Federal actions that may affect species proposed for listing or critical habitat proposed for designation may require a conference under ESA Section 7(a)(4).

Determination Key Result

This project may affect the threatened Northern long-eared bat; therefore, consultation with the Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.) is required. However, based on the information you provided, this project may rely on the Service's January 5, 2016, *Programmatic Biological Opinion on Final 4(d) Rule for the Northern Long-Eared Bat and Activities Excepted from Take Prohibitions* to fulfill its Section 7(a)(2) consultation obligation.

Qualification Interview

1. Is the action authorized, funded, or being carried out by a Federal agency?

   Yes

2. Have you determined that the proposed action will have "no effect" on the northern long-eared bat? (If you are unsure select "No")

   No

3. Will your activity purposefully **Take** northern long-eared bats?

   No

4. Is the project action area located wholly outside the White-nose Syndrome Zone?

   Automatically answered

   No

5. Have you contacted the appropriate agency to determine if your project is near a known hibernaculum or maternity roost tree?

   Location information for northern long-eared bat hibernacula is generally kept in state Natural Heritage Inventory databases – the availability of this data varies state-by-state. Many states provide online access to their data, either directly by providing maps or by providing the opportunity to make a data request. In some cases, to protect those resources, access to the information may be limited. A web page with links to state Natural Heritage Inventory databases is available at www.fws.gov/midwest/endangered/mammals/nleb/nhisites.html.

   Yes

6. Will the action affect a cave or mine where northern long-eared bats are known to hibernate (i.e., hibernaculum) or could it alter the entrance or the environment (physical or other alteration) of a hibernaculum?

   No

7. Will the action involve Tree Removal?

   Yes

8. Will the action only remove hazardous trees for the protection of human life or property?

   No

9. Will the action remove trees within 0.25 miles of a known northern long-eared bat hibernaculum at any time of year?

   No

10. Will the action remove a known occupied northern long-eared bat maternity roost tree or any trees within 150 feet of a known occupied maternity roost tree from June 1 through July 31?

    No

Project Questionnaire

If the project includes forest conversion, report the appropriate acreages below. Otherwise, type '0' in questions 1-3.

1. Estimated total acres of forest conversion:

5.5

2. If known, estimated acres of forest conversion from April 1 to October 31

0

3. If known, estimated acres of forest conversion from June 1 to July 31

0

If the project includes timber harvest, report the appropriate acreages below. Otherwise, type '0' in questions 4-6.

4. Estimated total acres of timber harvest

0

5. If known, estimated acres of timber harvest from April 1 to October 31

0

6. If known, estimated acres of timber harvest from June 1 to July 31

0

If the project includes prescribed fire, report the appropriate acreages below. Otherwise, type '0' in questions 7-9.

7. Estimated total acres of prescribed fire

0

8. If known, estimated acres of prescribed fire from April 1 to October 31

0

9. If known, estimated acres of prescribed fire from June 1 to July 31

0

If the project includes new wind turbines, report the megawatts of wind capacity below. Otherwise, type '0' in question 10.

10. What is the estimated wind capacity (in megawatts) of the new turbine(s)?

0

Appendix A

General Plans

CURVE #1 - NH ROUTE 125
PI= 2348+02.80
N = 130892.70
E = 1138555.49
DELTA = 59°14'08.17" LT
D = 2°59'02.96"
R = 1920.00'
T = 1091.50'
L = 1985.00'
E = 288.57'

STA. 2334+00
BEGIN CONSTRUCTION
LIMIT OF WORK

CLEARING LINE (TYP.)
SLOPE LINE (TYP.)
STA. 2336+00
BEGIN 45:1 LANE TAPER 33.9' RT & 33.8' LT
PAVEMENT/ENCROACHMENT REMOVAL (TYP.)
DRAINAGE EASEMENT
PC 2337+11.30
MATCH TO SHEET 10044EG02
STA. 2343+65
END 45:1 LANE TAPER 17' LT & 17' RT
NH RTE 125
Exist R.O.W.
Exist C.A.R.O.W.
GRID
SCALE IN FEET
50 0 50 100

PRELIMINARY PLANS
SUBJECT TO CHANGE
DATE 1/5/2021

REVISIONS AFTER PROPOSAL	NUMBER	DATE	STATION	DESCRIPTION

SDR PROCESSED	E. ROLSER	DATE 1/5/2021
NEW DESIGN	S. HILL	DATE 1/5/2021
SHEET CHECKED	J. MERCER	DATE 1/5/2021
AS BUILT DETAILS		DATE

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION ∘ BUREAU OF HIGHWAY DESIGN

GENERAL PLANS

DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
10044EG01	40633	13	256

REVISIONS AFTER PROPOSAL			
NUMBER	DATE	STATION	DESCRIPTION

MATCH TO SHEET 10044EG01

MATCH TO 10044EG03

DRAINAGE EASEMENT

SLOPE LINE (TYP.)

CLEARING LINE (TYP.)

PAVEMENT/ENCROACHMENT REMOVAL (TYP.)

DRAINAGE EASEMENT

DRAINAGE EASEMENT

DRAINAGE EASEMENT

OML

PT 22+24.73

PRC 21+61.80

21+24.05

PT 929+66.50

PT 2356+96.30

POT 2357+50.00 NH ROUTE 125 =
POT 930+21.77 KINGSTON RD.

PRC 923+53.91

PT 925+43.92

PC 927+23.07

PC 920+68.91

CURVE #1 2348

2349

2350

2351

2352

2353

2354

2355

2356

2357

2358

2359

920

921

CURVE #1 922

923

924

CURVE #2

925

926

927

928

CURVE #3 929

Kingston Road

Granite Road

STA. 920+00
LIMIT OF WORK

STA. 920+50
BEGIN 23:1 SHOULDER TAPER 12.3' LT & 11.6' RT
BEGIN 175:1 LANE TAPER 10.6' RT
BEGIN 233:1 LANE TAPER 11.3' LT

STA. 921+20
END 23:1 SHOULDER TAPER 15' RT & 15' LT
END 175:1 LANE TAPER 11' RT
END 233:1 LANE TAPER 11' LT

BOUND FOR TOWN LINE
TO BE REPLACED AND/OR
PROTECTED DURING CONSTRUCTION

STA. 926+65
BEGIN 20:1 LANE TAPER 11' RT

STA. 927+12.5
BEGIN 12.5:1 SHOULDER TAPER 16' LT

STA. 927+50
BEGIN 10:1 SHOULDER TAPER 15' RT
END 12.5:1 SHOULDER TAPER 19' LT

STA. 927+90
END 10:1 SHOULDER TAPER 19' RT

STA. 928+85
END 20:1 LANE
TAPER 22' RT

CURVE #1 - NH ROUTE 125
PI= 2348+02.80
N = 130892.70
E = 1138555.49
DELTA = 59°14'08.17" LT
D = 2°59'02.96"
R = 1920.00'
T = 1091.50'
L = 1985.00'
E = 288.57'

CURVE #2 - KINGSTON/GRANITE ROAD
PI= 924+50.08
N = 131607.07
E = 1138663.87
DELTA = 21°46'26.3" RT
D = 11°27'33.0"
R = 500.00'
T = 96.17'
L = 190.01'
E = 9.16'

CURVE #1 - KINGSTON/GRANITE ROAD
PI= 922+11.56
N = 131368.41
E = 1138655.01
DELTA = 6°31'54.4" LT
D = 2°17'30.6"
R = 2500.00'
T = 142.66'
L = 285.00'
E = 4.07'

CURVE #3 - KINGSTON/GRANITE ROAD
PI= 929+06.93
N = 132026.86
E = 1138849.90
DELTA = 111°34'40.7" LT
D = 45°50'11.8"
R = 125.00'
T = 183.86'
L = 243.43'
E = 97.32'

50 0 50 100
SCALE IN FEET

PRELIMINARY PLANS
SUBJECT TO CHANGE
DATE 1/5/2021

SDR PROCESSED	E. ROLSER	DATE 1/5/2021
NEW DESIGN	S. HILL	DATE 1/5/2021
SHEET CHECKED	J. MERCER	DATE 1/5/2021
AS BUILT DETAILS		DATE

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION ◦ BUREAU OF HIGHWAY DESIGN

GENERAL PLANS

DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
10044EG02	40633	14	256

GRID
MATCH TO 10044EG02
MATCH TO 10044EG04
NH RTE 125
Diamond Oaks Blvd
Little River
PAVEMENT/ENCROACHMENT REMOVAL (TYP.)
POC 2372+25.11 NH ROUTE 125 =
POT 506+03.53 DIAMOND OAKS BLVD.
PC 2370+36.81
PT 505+61.50
CURVE #2
CURVE #1
NHDOT RESTRICTION
TO 2 POINTS OF ACCESS
(SEE 1575/154)
DAHER MOTORS OF KINGSTON, INC.
ACCESS EASE. HERE BENEFITS PCL. 26
ACCESS EASE. HERE BENEFITS PCL. 25
RAMEY, WADIH
REALTY TRUST
ALLEN, STEVEN B.
BREMAN TRUST
MASSAPAUG REALTY TRUST
Roadstone Drive
2 Story Wood frame
2 story metal
1 story wood
2 story wood
asphalt drive/parking
propane tank storage
#3050
asphalt drive
gravel parking
DRAINAGE EASEMENT
PT 502+76.77
PC 504+15.44
SLOPE LINE (TYP.)
CLEARING LINE (TYP.)
STA. 501+50
END 22:1 E.P. TAPER 15' RT
END 17:1 E.P. TAPER 15' LT
STA. 501+00
BEGIN 22:1 E.P. TAPER 12.7' RT
BEGIN 17:1 E.P. TAPER 12.1' LT
PC 500+90.85
STA. 500+50
LIMIT OF WORK
PEM1C
R2UBH
PEM1C/PF01E
PSS1E
2360
2361
2362
2363
2364
2365
2366
2367
2368
2369
2370
2371
2372
2373
500
501
502
503
504
505

CURVE #1 - DIAMOND OAKS BLVD
PI= 501+84.08
N = 133168.41
E = 1138806.36
DELTA = 10°39'09.4" RT
D = 5°43'46.5"
R = 1000.00'
T = 93.23'
L = 185.92'
E = 4.34'

CURVE #2 - DIAMOND OAKS BLVD
PI= 505+04.99
N = 133489.58
E = 1138819.56
DELTA = 83°41'10.6" RT
D = 57°17'44.81"
R = 100.00'
T = 89.55'
L = 146.06'
E = 34.23'

CURVE #2 - NH ROUTE 125
PI= 2375+53.95
N = 133838.39
E = 1138698.35
DELTA = 23°22'27.74" RT
D = 2°17'30.59"
R = 2500.00'
T = 517.14'
L = 1019.90'
E = 52.93'

SCALE IN FEET: 50 0 50 100

PRELIMINARY PLANS
SUBJECT TO CHANGE
DATE 1/5/2021

GM2

REVISIONS AFTER PROPOSAL			
NUMBER	DATE	STATION	STATION
DESCRIPTION			

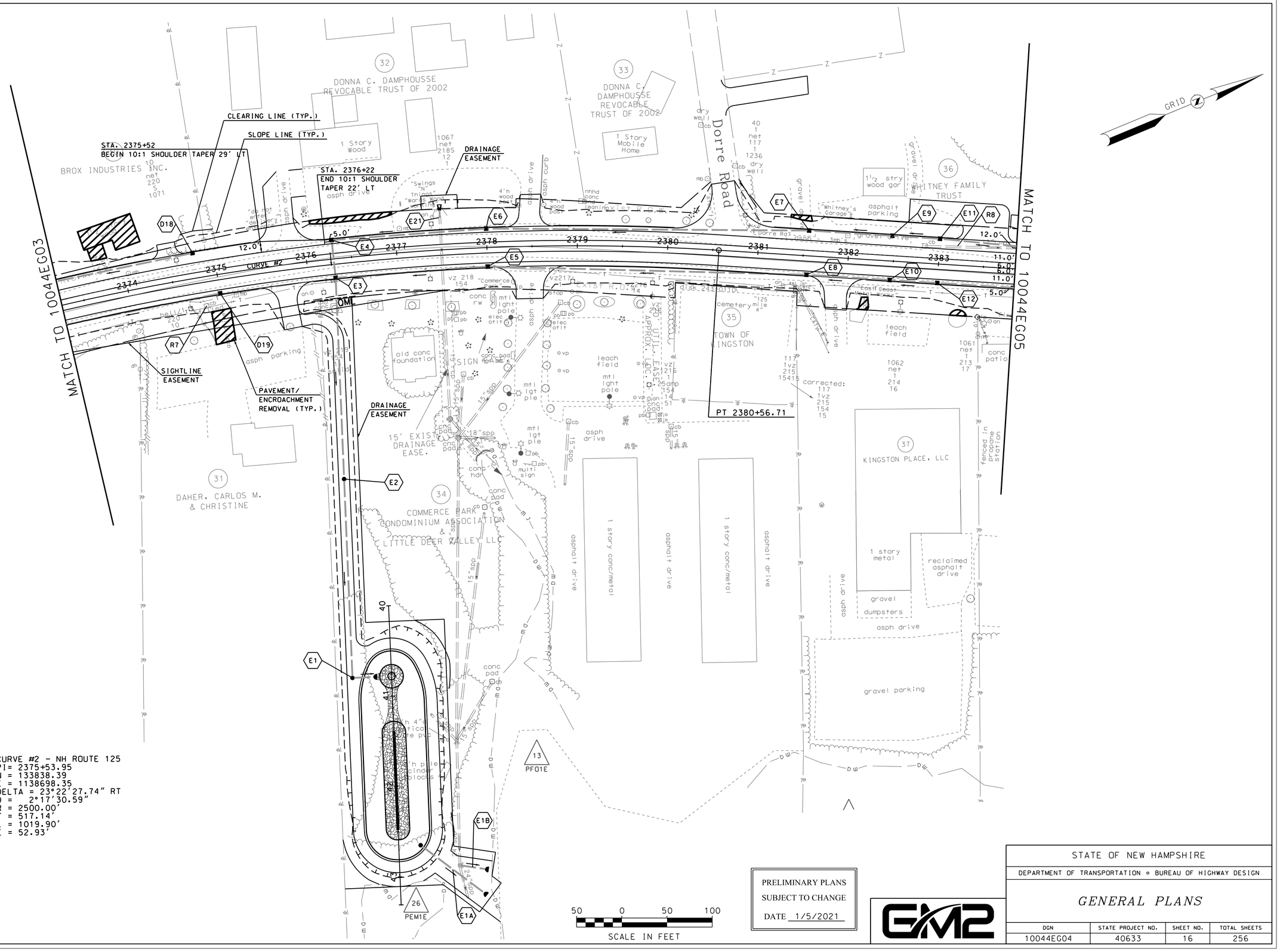
SDR PROCESSED	E. ROLSER	DATE 1/5/2021
NEW DESIGN	S. HILL	DATE 1/5/2021
SHEET CHECKED	J. MERCER	DATE 1/5/2021
AS BUILT DETAILS		DATE

STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION ◦ BUREAU OF HIGHWAY DESIGN

GENERAL PLANS

DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
10044EG03	40633	15	256



CURVE #2 - NH ROUTE 125
PI= 2375+53.95
N = 133838.39
E = 1138698.35
DELTA = 23°22'27.74" RT
D = 2°17'30.59"
R = 2500.00'
T = 517.14'
L = 1019.90'
E = 52.93'

PRELIMINARY PLANS
SUBJECT TO CHANGE
DATE 1/5/2021

NUMBER	DESCRIPTION	DATE	STATION
	REVISIONS AFTER PROPOSAL		

SDR PROCESSED	E. ROLSER	DATE 1/5/2021
NEW DESIGN	S. HILL	DATE 1/5/2021
SHEET CHECKED	J. MERCER	DATE 1/5/2021
AS BUILT DETAILS		DATE

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION ∘ BUREAU OF HIGHWAY DESIGN
GENERAL PLANS

DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
10044EG04	40633	16	256

REVISIONS AFTER PROPOSAL

NUMBER	DESCRIPTION	STATION	DATE

SDR PROCESSED	E. ROLSER	DATE 1/5/2021
NEW DESIGN	S. HILL	DATE 1/5/2021
SHEET CHECKED	J. MERCER	DATE 1/5/2021
AS BUILT DETAILS		DATE

GRID

MATCH TO 10044EG04

MATCH TO 10044EG06

STA. 2383+87
BEGIN 10:1 SHOULDER TAPER 29' LT

DRAINAGE EASEMENT

STA. 2384+57
END 10:1 SHOULDER TAPER 22' LT

PAVEMENT/ENCROACHMENT REMOVAL (TYP.)

DRAINAGE EASEMENT

CLEARING LINE (TYP.)

SLOPE LINE (TYP.)

50' ACCESS EASE. BENEFITS PARCEL 43

old temp service pole with und conduit

crushed stone

STATE OF NH (DOT)

FIELDSTONE MEADOW REALTY LLC

JASON & CYNTHIA LIVING TRUST

SARCASM LLC

BURTT, IRENE M.

PHYLLIS CROWELL REVOCABLE TRUST OF 2015

Exist R.O.W.

NH RTE 125

Colonial Road

STA. 100+76
LIMIT OF WORK

PT 100+91.29

PC 101+60.85

PRC 106+45.62

PT 107+36.10

PCC 103+70.28

STA. 106+00
BEGIN 10:1 E.P. TAPER 10.2' RT
BEGIN 11:1 E.P. TAPER 10.4' LT

STA. 106+50
END 10:1 E.P. TAPER 15' RT
END 11:1 E.P. TAPER 15' LT

STA. 2395+85
BEGIN 45:1 SHOULDER TAPER 22' RT

50' ACCESS EASEMENT

3'DIA. CONC WELL TILE

DRILLED WELL

propane tank on conc pad

leach field

PF01E

PF01E/PSS1E/PEM1E

50 0 50 100
SCALE IN FEET

PRELIMINARY PLANS
SUBJECT TO CHANGE
DATE 1/5/2021

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION ∘ BUREAU OF HIGHWAY DESIGN

GENERAL PLANS

DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
10044EG05	40633	17	256

MATCH TO 10044EG05

MATCH TO 10044EG07

Colonial Road

Debra Road

Happy Hollow Lane

PT 407+10.25

PC 52+74.83

PT 53+20.00

PC 109+02.66

PT 109+65.31

PC 406+04.80

PT 404+50.38

POC 404+00.00 HAPPY HOLLOW LN. =
POT 109+93.56 COLONIAL RD.

PC 402+73.93

STA. 402+50
END 25:1 E.P. TAPER 15' RT
END 17:1 E.P. TAPER 15' LT

STA. 402+00
BEGIN 25:1 E.P. TAPER 13' RT
BEGIN 17:1 E.P. TAPER 12' LT

STA. 401+50
LIMIT OF WORK

POT 2400+78.02 NH ROUTE 125 =
POT 407+48.87 HAPPY HOLLOW LN.

PC 2408+16.59

CURVE #1

CURVE #2

CLEARING LINE (TYP.)

SLOPE LINE (TYP.)

PAVEMENT/ENCROACHMENT
REMOVAL (TYP.)

EXIST R.O.W.

STA. 2399+00
END 45:1 SHOULDER
TAPER 29' RT

DRAINAGE EASEMENT

51 COMCAST OF CONNECTICUT/ GEORGIA/MASSACHUSETTS/ NEW HAMPSHIRE/ NEW YORK/ NORTH CAROLINA/ VIRGINIA/VERMONT LLC

52 STATE OF NH (DOT)

50 TOWN OF KINGSTON

53 KINNEY, WAYNE E.

54 YOUNG, ROGER S.

55 JOHN D. LANCASTER REVOCABLE TRUST

56 STATE OF NH (DOT)

58 CB2 REALTY LLC

49 [illegible] AND MADELINE R. [illegible] IRREVOCABLE TRUST

48 . CLEGG, III ABLE TRUST

GEOFFROY ROUTE 125 TRUST

CURVE #1 - HAPPY HOLLOW LANE
PI= 403+73.27
N = 135762.92
E = 1139922.81
DELTA = 65°38'45.1" RT
D = 37°12'18.2"
R = 154.00'
T = 99.33'
L = 176.44'
E = 29.26'

CURVE #2 - HAPPY HOLLOW LANE
PI= 406+63.02
N = 136074.33
E = 1139904.08
DELTA = 60°25'21.6" LT
D = 57°17'44.8"
R = 100.00'
T = 58.23'
L = 105.46'
E = 15.72'

GRID

50 0 50 100
SCALE IN FEET

PRELIMINARY PLANS
SUBJECT TO CHANGE
DATE 1/5/2021

NUMBER	DESCRIPTION	STATION	DATE
	REVISIONS AFTER PROPOSAL	STATION	DATE

SDR PROCESSED	E. ROLSER	DATE 1/5/2021
NEW DESIGN	S. HILL	DATE 1/5/2021
SHEET CHECKED	J. MERCER	DATE 1/5/2021
AS BUILT DETAILS		DATE

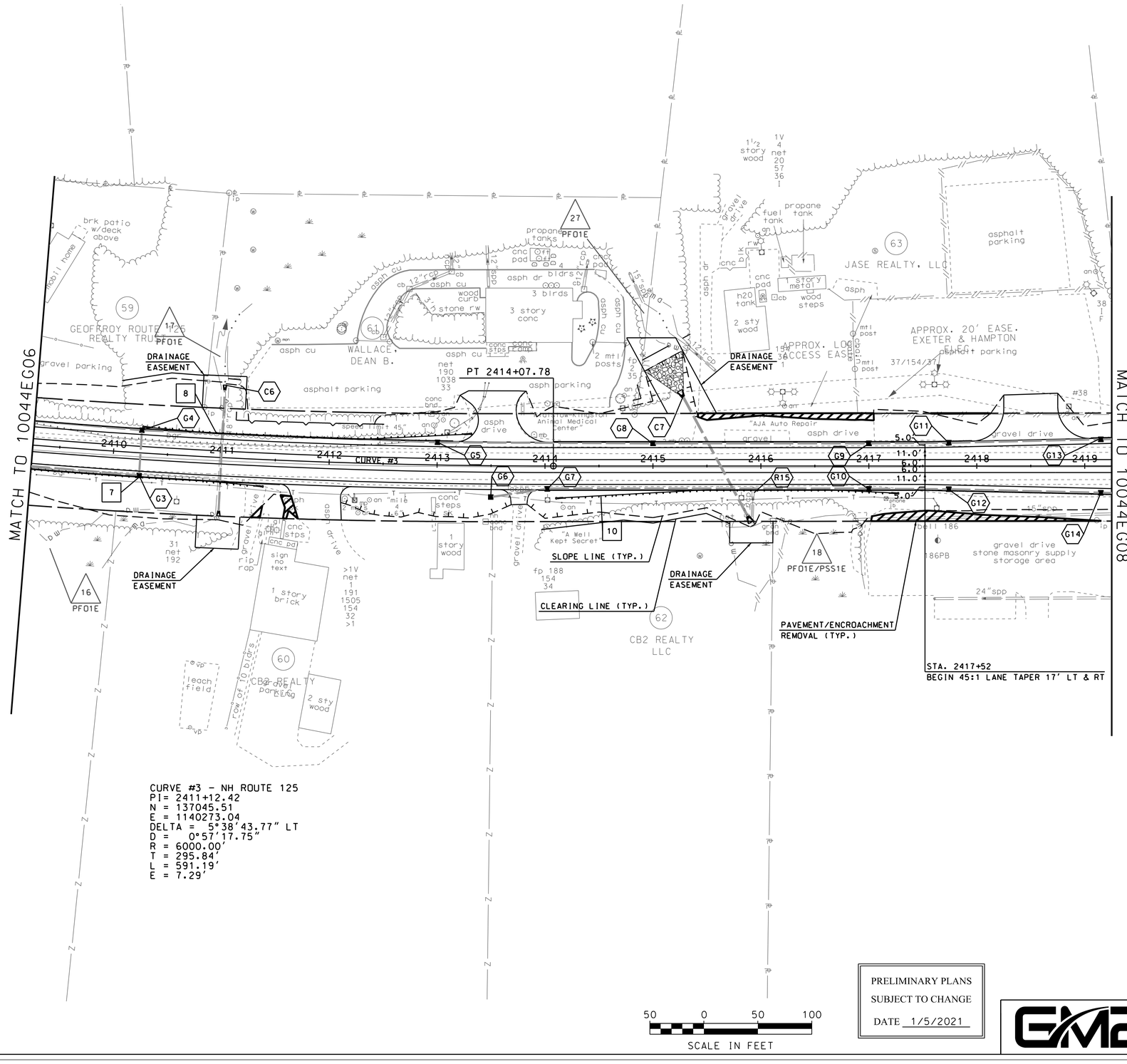
STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION ∘ BUREAU OF HIGHWAY DESIGN
GENERAL PLANS

DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
10044EG06	40633	18	256

REVISIONS AFTER PROPOSAL

NUMBER	DESCRIPTION	STATION	DATE

SDR PROCESSED	E. ROLSER	DATE 1/5/2021
NEW DESIGN	S. HILL	DATE 1/5/2021
SHEET CHECKED	J. MERCER	DATE 1/5/2021
AS BUILT DETAILS		DATE



PRELIMINARY PLANS
SUBJECT TO CHANGE
DATE 1/5/2021

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION ∘ BUREAU OF HIGHWAY DESIGN

GENERAL PLANS

DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
10044EG07	40633	19	256

REVISIONS AFTER PROPOSAL

STATION	DESCRIPTION	DATE	NUMBER

SDR PROCESSED	E. ROLSER	DATE 1/5/2021
NEW DESIGN	S. HILL	DATE 1/5/2021
SHEET CHECKED	J. MERCER	DATE 1/5/2021
AS BUILT DETAILS		DATE

MATCH TO 10044EG07

CURVE #4 - NH ROUTE 125
PI= 2427+23.15
N = 138554.63
E = 1140837.43
DELTA = 1°50'30.08" RT
D = 0°41'55.42"
R = 8200.00'
T = 131.80'
L = 263.58'
E = 1.06'

PT 62+23.14
PC 61+59.88
SLOPE LINE (TYP.)
CLEARING LINE (TYP.)

STA. 2424+73
END CONSTRUCTION

STA. 2431+18
LIMIT OF WORK

PC 2432+12.20

PT 2428+54.93

PC 2425+91.35

STA. 2425+50
END 45:1 LANE TAPER 33.6' LT & 33.2' RT

PAVEMENT/ENCROACHMENT REMOVAL (TYP.)

ENCROACHMENT AGREEMENT 42/8/282

DRAINAGE EASE. PROJECT 10044C

POND EASE. PROJECT 10044C

20' UTIL EASE.

(1 POINT OF ACCESS PROJECT 10044C)

(1 POINT OF ACCESS PROJECT 10044C)

66 MATHEWS, GARY
MATHEWS, ROBERT G.
MATHEWS, RICHARD J., JR.
& ANDREWS, JOYCE

65 PITTORE, ALFRED

64 TASBAK, LLC.

68 STATE OF NH (DOT)

69 PATRIOT PARK CONDOMINIUM

70 ROUTE 125 COMMERCIAL CENTER CONDOMINIUM ASSOCIATION

71 HT PROPERTIES, LLC

N/F 154 49A CIANOPOULOS, WILLIAM & CYNTHIA

N/F DOIRON, ROBIN

Family Pools
Derailed
Boutique

"The Trailer Place"
"M.A.S.S. Chassis"
"The Tractor Place of NH"
Advanced Tube Fabrication Machinery"
"Atlantic Machinery"

"Rte 125 Commercial Center"

NH RTE 125

GRID

50 0 50 100
SCALE IN FEET

PRELIMINARY PLANS
SUBJECT TO CHANGE
DATE 1/5/2021

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION ◦ BUREAU OF HIGHWAY DESIGN

GENERAL PLANS

DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
10044EG08	40633	20	256

Appendix B

List of Preparers

Appendix B

The principal parties responsible for preparing this Draft Written Reevaluation are listed below.

Name, Title	Role
Federal Highway Administration	
Jamison Sikora	General consultation
NH Department of Transportation	
Mathew Lampron, P.E.	General consultation
Marc Laurin, Environmental Manager	Lead Technical Reviewer
GM2, Inc.	
Darren Blood, P.E., Principal	Design Project Manager
Seth Hill, P.E., Sr. Engineer	Lead Designer
Jennifer Riordan, CWS, Sr. Environmental Scientist	Lead Reviewer
McFarland-Johnson, Inc.	
Jennifer Zorn, AICP, Sr. Project Planner	Principal author, NEPA compliance, agency consultation
Christine Perron, CWS, Sr. Environmental Analyst	NEPA compliance, peer review
Stephen Hoffman, Environmental Analyst	Researcher, report figures, report writing
Jordan Tate, Environmental Analyst	Researcher, report writing
Harris Miller Miller & Hanson, Inc.	
Christopher Menge, Principal Consultant	Noise Analysis and Air Quality Technical Reports
Philip DeVita, Project Manager	Noise Analysis and Air Quality Technical Reports
Preservation Company, Inc.	
Lynne Monroe, Principal	Section 106 compliance, Historic Architecture
Reagan Baydoun Ruedig, Lead Investigator	Section 106 compliance, Historic Architecture
Independent Archaeological Consultants, LLC	
Jessica Cofelice, RPA, Director and Principal Investigator	Section 106 compliance, Archaeology
Jacob Tumelaire, RPA, Director & Principal Investigator	Section 106 compliance, Archaeology

Appendix C

List of References

Appendix C

The following is a list of references used during the preparation of the NEPA Written Reevaluation.

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